Table 3-1
Summary of Soil Quality Test Results
Former Morey Property Phase II ESA
Downers Grove, Illinois

Parameter	Residential Tier I Soil Remediation Objectives [a]				Industrial/ Commercial Tier I Soil Remediation Objectives [a]						Laboratory Reporting Limit	SB-01 14-16'	SB-01 52-54'	SB-01 80-82'	SB-02 14-16'	SB-02 14-16' (Dup.)	SB-02 68-70'	SB-03 18-20'	SB-03 38-40'
			Migration to Groundwater		Industrial/ Commercial		Construction Worker		Migration to Groundwater										
	Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II									
Soil pH- Method 9045C																			
pH	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		7.79	7.76	7.75	7.36	8.04	7.83	NA	NA
Volatile Organic Compounds (VOCs) – Method 5035/8260B																			
Acetone	7,800	100,000	16	16	200,000	100,000	200,000	100,000	16	16	.0196 - 0.0257	BDL	BDL	BDL	0.0300	0.0293	0.0272	0.0384	0.0456
Benzene	12	0.8	0.03	0.17	100	2	2,300	2	0.03	0.17	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	10	3,000	0.6	0.6	92	3,000	2,000	3,000	0.6	0.6	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromoform	81	53	0.8	0.8	720	100	16,000	140	0.8	0.8	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromomethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Disulfide	7,800	720	32	160	200,000	720	20,000	9.0	32	160	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	5	0.3	0.07	0.33	44	0.64	410	0.9	0.07	0.33	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	1,600	130	1	6.5	41,000	1,300	41,000	1,300	1	6.5	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorodibromomethane	1,600	1,300	0.4	0.4	41,000	1,300	41,000	1,300	0.4	0.4	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	100	0.3	0.6	2.9	940	0.54	2,000	0.76	0.6	2.9	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	7800	1300	23	110	200000	1700	200,000	130	2.3	110	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane	7	0.4	0.02	0.1	63	0.7	1,400	0.99	0.02	0.1	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	700	1500	0.06	0.3	48000	1500	1,800	300	0.06	0.3	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethene	780	1200	0.4	1.1	20000	1200	20,000	1200	0.4	1.1	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-Dichloroethene	1600	3100	0.7	3.4	41000	3100	41,000	3100	0.7	3.4	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloropropane	9	15	0.03	0.15	84	23	1,800	0.5	0.03	0.15	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-Dichloropropene (cis+trans)	6.4	1.1	0.004	0.02	57	2.1	1,200	0.39	0.004	0.02	0.00235 - 0.00308	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	7800	400	13	19	200000	400	20,000	58	13	19	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Hexanone	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene chloride	85	13	0.02	0.2	760	24	12,000	34	0.02	0.2	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	0.00489	BDL	BDL
4-Methyl-2-pentanone	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	16000	1500	4	18	410000	1500	41,000	430	4	18	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethane	12	11	0.06	0.3	110	20	2,400	28	0.06	0.3	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	16000	650	12	29	410000	650	410,000	42	12	29	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	NE	1200	2	9.6	NE	1200	NE	1200	2	9.6	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	58	5	0.06	0.3	520	8.9	1,200	12	0.06	0.3	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl acetate	78000	1000	170	170	1000000	1600	200,000	10	170	170	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl chloride	0.46	0.28	0.01	0.07	7.9	1.1	170	1.1	0.01	0.07	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Xylenes	160000	320	150	150	1000000	320	410,000	320	150	150	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
Results in mg/kg (ppm)
a) 35 Ill. Admin. Code Part 742 (Tiered Approach to Corrective Action Objectives), Appendix B
NA - Not Analyzed
NE - Not Established
BDL - Below Detection Limit

Values in Boldface Exceed Tier 1 Residential Soil Remediation Objective
⬭ value exceeds Tier I Industrial/ Commercial Soil Remediation Objective.

Table 3-1
Summary of Soil Quality Test Results
Former Morey Property Phase II ESA
Downers Grove, Illinois

	Residential Tier I Soil Remediation Objectives [a]				Industrial/ Commercial Tier I Soil Remediation Objectives [a]												
			Migration to Groundwater		Industrial/ Commercial		Construction Worker		Migration to Groundwater								
Parameter	Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	Laboratory Reporting Limit	SB-04 18-20'	SB-04 38-40'	SB-05 5-7'	SB-05 35-37'	SB-05 38-40'	SB-06 18-20'	SB-06 38-40'
Soil pH- Method 9045C																		
pH	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		8.03	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (VOCs) – Method 5035/8260B																		
Acetone	7,800	100,000	16	16	200,000	100,000	200,000	100,000	16	16	.0196 - 0.0257	0.0485	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	12	0.8	0.03	0.17	100	2	2,300	2	0.03	0.17	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	10	3,000	0.6	0.6	92	3,000	2,000	3,000	0.6	0.6	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromoform	81	53	0.8	0.8	720	100	16,000	140	0.8	0.8	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromomethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Disulfide	7,800	720	32	160	200,000	720	20,000	9.0	32	160	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	5	0.3	0.07	0.33	44	0.64	410	0.9	0.07	0.33	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	1,600	130	1	6.5	41,000	1,300	41,000	1,300	1	6.5	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorodibromomethane	1,600	1,300	0.4	0.4	41,000	1,300	41,000	1,300	0.4	0.4	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	100	0.3	0.6	2.9	940	0.54	2,000	0.76	0.6	2.9	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	7800	1300	23	110	200000	1700	200,000	130	2.3	110	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane	7	0.4	0.02	0.1	63	0.7	1,400	0.99	0.02	0.1	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	700	1500	0.06	0.3	18000	1500	1,800	300	0.06	0.3	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethene	780	1200	0.4	1.1	20000	1200	20,000	1200	0.4	1.1	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-Dichloroethene	1600	3100	0.7	3.4	41000	3100	41,000	3100	0.7	3.4	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloropropane	9	15	0.03	0.15	84	23	1,800	0.5	0.03	0.15	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-Dichloropropene (cis+trans)	6.4	1.1	0.004	0.02	57	2.1	1,200	0.39	0.004	0.02	0.00235 - 0.00308	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	7800	400	13	19	200000	400	20,000	58	13	19	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Hexanone	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene chloride	85	13	0.02	0.2	760	24	12,000	34	0.02	0.2	.00392 - 0.00513	0.00652	BDL	BDL	BDL	BDL	BDL	BDL
4-Methyl-2-pentanone	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	16000	1500	4	18	410000	1500	41,000	430	4	18	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	12	11	0.06	0.3	110	20	2,400	28	0.06	0.3	.00392 - 0.00513	BDL	BDL	10.3	BDL	BDL	BDL	BDL
Toluene	16000	650	12	29	410000	650	410,000	42	12	29	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	NE	1200	2	9.6	NE	1200	NE	1200	2	9.6	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	58	5	0.06	0.3	520	8.9	1,200	12	0.06	0.3	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl acetate	78000	1000	170	170	1000000	1600	200,000	10	170	170	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl chloride	0.46	0.28	0.01	0.07	7.9	1.1	170	1.1	0.01	0.07	.00392 - 0.00513	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Xylenes	160000	320	150	150	1000000	320	410,000	320	150	150	0.00785 - 0.0103	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
Results in mg/kg (ppm)
a) 35 Ill. Admin. Code Part 742 (Tiered Approach to Corrective Action Objectives), Appendix B
NA - Not Analyzed
NE - Not Established
BDL - Below Detection Limit

Values in Boldface Exceed Tier 1 Residential Soil Remediati
(10.3) value exceeds Tier I Industrial/ Commercial Soil Re

Table 3-1
Detected Soil Quality Parameters
Former Morey Property
Phase II ESA Additional Subsurface Investigation
Downers Grove, Illinois

	Residential Tier I Soil Remediation Objectives [a]				Industrial/ Commercial Tier I Soil Remediation Objectives [a]											
			Migration to Groundwater		Industrial/ Commercial		Construction Worker		Migration to Groundwater		SB-07	SB-08	SB-08D	SB-09	SB-10	SB-11
Parameter	Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	4' to 6' (mg/kg)	4' to 6' (mg/kg)	Dup. of SB-08 (mg/kg)	2' to 4' (mg/kg)	1' to 3' (mg/kg)	1' to 3' (mg/kg)
Volatile Organic Compounds (VOCs) – Method 5035/8260B																
Acetone	7,800	100,000	16	16	200,000	100,000	200,000	100,000	16	16	BDL	BDL	BDL	BDL	BDL	BDL
Methylene chloride	85	13	0.02	0.2	760	24	12,000	34	0.02	0.2	0.015	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	12	11	0.06	0.3	110	20	2,400	28	0.06	0.3	BDL	**0.13**	**0.19**	BDL	0.0092	BDL
Toluene	16,000	650	12	29	410,000	650	410,000	42	12	29	0.0058	BDL	BDL	BDL	0.006	0.0069

Notes:
Analysis by STAT Analysis Corporation (STAT). VOCs analyzed by Method 8260B. Results given in mg/kg (ppm).
Values in **Boldface** Exceed Tier 1 Residential Soil Remediation Objective (Migration to Groundwater - Class I Groundwater Only)
⬭ Value exceeds Tier I Industrial/ Commercial Soil Remediation Objective (Migration to Groundwater - Class I Groundwater Only)
NT - Not Tested, NE - Not Established, BDL - Below Detection Limit
[a] 35 Ill. Admin. Code Part 742 (Tiered Approach to Corrective Action Objectives), Appendix B

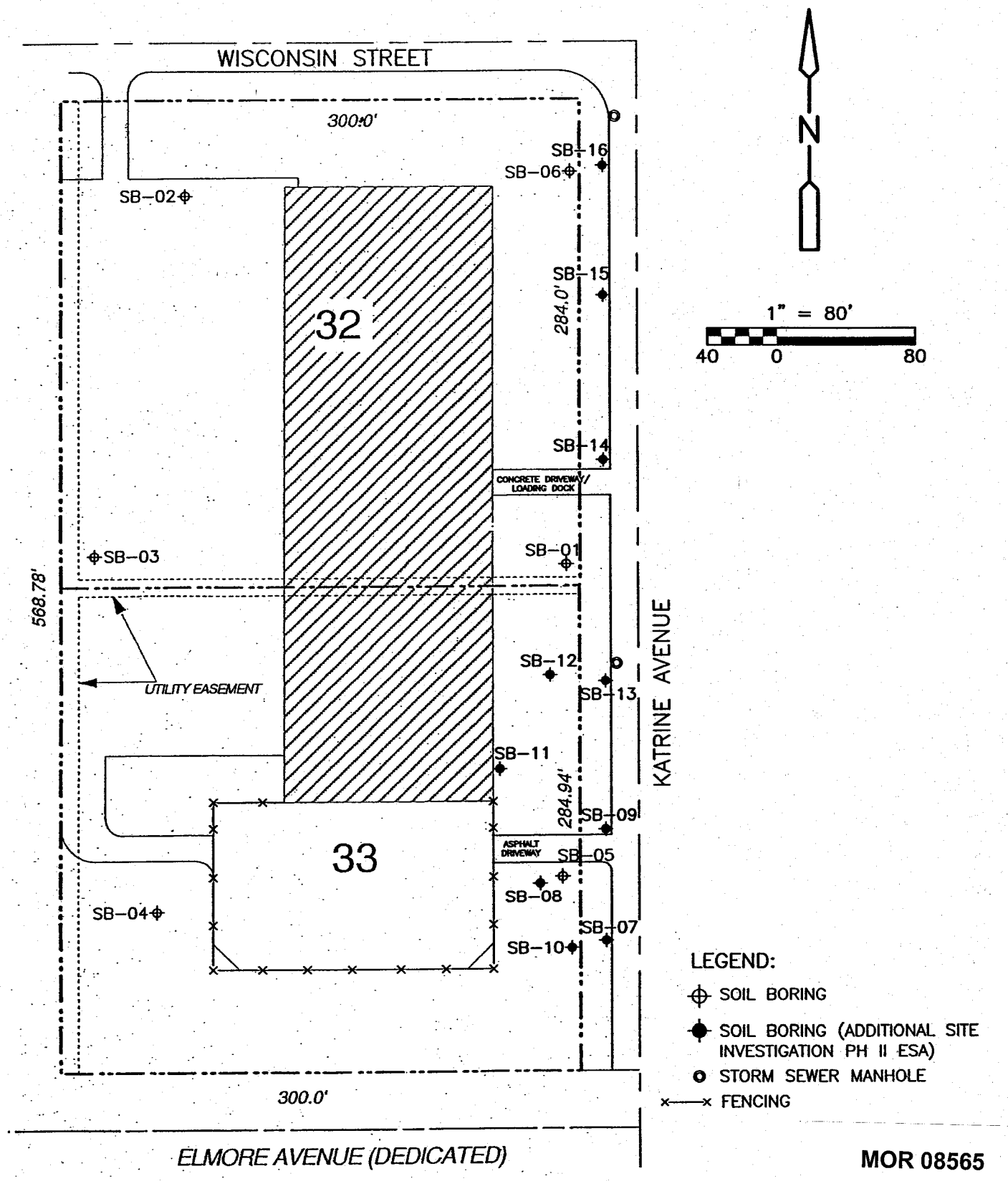
MOR 08563

Table 3-1
Detected Soil Quality Parameters
Former Morey Property
Phase II ESA Additional Subsurface Investigation
Downers Grove, Illinois

	Residential Tier I Soil Remediation Objectives [a]				Industrial/ Commercial Tier I Soil Remediation Objectives [a]										
			Migration to Groundwater		Industrial/ Commercial		Construction Worker		Migration to Groundwater		SB-12	SB-13	SB-14	SB-15	SB-16
Parameter	Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	1' to 3' (mg/kg)	1' to 3' (mg/kg)	1' to 3' (mg/kg)	1' to 3' (mg/kg)	1' to 3' (mg/kg)
Volatile Organic Compounds (VOCs) – Method 5035/8260B															
Acetone	7,800	100,000	16	16	200,000	100,000	200,000	100,000	16	16	0.047	0.037	0.043	0.052	0.045
Methylene chloride	85	13	0.02	0.2	760	24	12,000	34	0.02	0.2	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	12	11	0.06	0.3	110	20	2,400	28	0.06	0.3	BDL	BDL	BDL	0.014	BDL
Toluene	16,000	650	12	29	410,000	650	410,000	42	12	29	BDL	BDL	BDL	BDL	BDL

Notes:
Analysis by STAT Analysis Corporation (STAT). VOCs analyzed by Method 8260B. Results given in mg/kg (ppm).
Values in **Boldface** Exceed Tier 1 Residential Soil Remediation Objective (Migration to Groundwater - Class I Groundwater Only)
⬭ Value exceeds Tier I Industrial/ Commercial Soil Remediation Objective (Migration to Groundwater - Class I Groundwater Only)
NT - Not Tested, NE - Not Established, BDL - Below Detection Limit
[a] 35 Ill. Admin. Code Part 742 (Tiered Approach to Corrective Action Objectives), Appendix B

MOR 08564



NOTE: SITE BASE MAP FROM PIONEER ENGINEERING REPORT DATED JANUARY 2001.

Figure 2-1
SOIL BORING LOCATIONS
MOREY CORPORATION PHASE II ESA
ADDITIONAL SITE INVESTIGATION

CDM

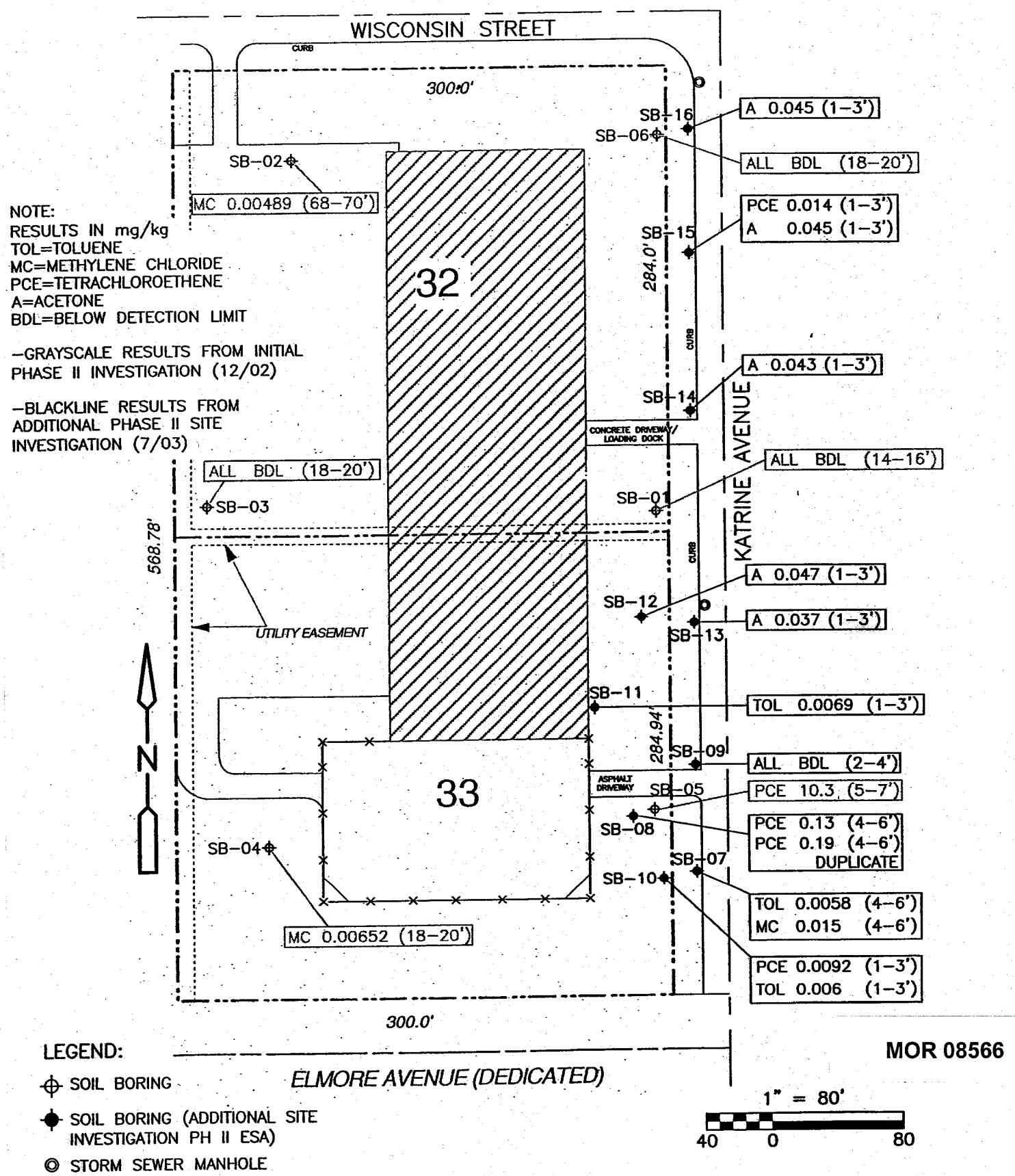


Figure 3-1
SOIL BORING ANALYTICAL RESULTS
MOREY CORPORATION PHASE II ESA
ADDITIONAL SITE INVESTIGATION

CDM

CDM

SUBJECT:

Enclosed are the final validation reports for the fractions listed below. Attachment 1 contains the qualified data reports.

Project #

SDG #	Fraction
B212111 (GLA)	Volatiles
B212115 (GLA)	Volatiles
B212131 (GLA)	Volatiles
0307169 (STAT)	Volatiles

The data validation was performed under Level IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update III, December 1996

Reviewer

Scott Kirchner

CDM
Data Validation Report

Project/Site Name:	Morey Phase II
Collection Date:	December 05, 2002
CDM Report Date:	September 19, 2005
Matrix:	Soil
Parameters:	Volatiles
Validation Level:	Level IV
Laboratory:	Great Lakes Analytical
Sample Delivery Group (SDG):	B212111

Sample Identification

Site ID	Lab ID
MP-SB-01-1416	B212111-01
MP-SB-01-5254	B212111-02
MP-SB-01-7678	B212111-03

MOR 08568

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

Data qualifiers were added as appropriate to a copy of the data reports. These modified data reports are provided at the end of this report.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

U Indicates the compound was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination ( ) were greater than or equal to 0.990.

For the purpose of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) and 0.05 relative response factor (RRF) National Functional Guideline criteria. All compounds were within the validation criteria with the following exceptions:

Date	Compound	%RSD	Associated Samples	Flag	RRF
11/5/02	Bromomethane	40.24	All	J (all detects)	
	Trichlorotrifluoromethane	37.78			
	Acetone	62.22			

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purpose of technical evaluation, all compounds were evaluated against the 25.0% (%D) and 0.05 RRF National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	RRF
12/09/02	Bromomethane	39.3	MP-SB-01-1416	J (all detects)	
	Trichlorotrifluoromethane	62.4	MP-SB-01-7678	UJ (all non-detects)	
	Acetone	64.5			
	Carbon disulfide	43.0			
	1,1,1-trichloroethane	27.7			
	Vinyl acetate	54.7			
	2-Butanone	73.1		R (2-butanon non-detects)	0.014
	4-methyl-2-pentanone	74.4			
	1,1,2-trichloroethane	27.4			
	2-hexanone	76.6			
	Chlorodibromomethane	25.5			
	Bromoform	38.8			
	1,1,2,2-tetrachloroethane	44.9			
12/10/02	Bromomethane	39.5	MP-SB-01-5254	J (all detects)	
	Trichlorotrifluoromethane	88.1		UJ (all non-detects)	
	Acetone	63.8			
	Chloroethane	39.5			
	Carbon disulfide	34.0			
	1,1,1-Trichloroethane	41.5			
	Vinyl acetate	51.8			
	2-Butanone	67.3		R (2-butanon non-detects)	0.017
	Carbon tetrachloride	32.7			
	Trichloroethene	37.8			
	4-methyl-2-pentanone	68.7			
	2-hexanone	72.1			
	Xylenes	30.8			
	Bromoform	26.7			
	1,1,2,2-tetrachloroethane	32.4			

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
BLK 2120162	12/09/02	NA	13	All

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
No			
Exceptions			

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (> 10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks with the following exceptions:

There were no field blanks associated with the samples contained in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Date	Compound	%R	Associated Samples	Flag
2120162 BS1	12/9/02	Chlorodibromomethane	74.4	MP-SB-01-1416	J (all detects)
		1,1,2-trichloroethane	72.4	MP-SB-01-7678	UJ (all non-detects)
		Trichlorofluoromethane	282		
2120162 BS2	12/9/02	Trichlorofluoromethane	346		

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits for the reported results. All internal standards areas were below criteria for initial analysis of sample MP-SB-01-5254. The reanalysis of this sample had acceptable internal standard areas and was used for reporting

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples for all samples.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for all samples.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment of Data

Data flags have been applied to data reports and attached at the end of this report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Additional Findings

During review of the raw data the following items were noted:

1. Some target and surrogate areas were manually integrated but the integration details were not included in the report. The laboratory was contacted and supplied some clarification that included integration details.

2. The surrogate control limits reported on a form titles QA/QC Report did not match the limits given on the data report forms. The laboratory was contacted as to which control limits the data were evaluated against. The laboratory responded that the criteria listed on the data report forms were used for results analysis and the ones on the QA/QC report were generated for instrumentation review only.

The laboratory responses were satisfactory and are attached to this report. No action was required on the data.

Data Validation Checklist,
Worksheets
And
Supplemental Information

VALIDATION FINDINGS CHECKLIST

LDC#: Merry Plaza II
SDG#: B212111

Reviewer: S. Kirchner

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	X			
Cooler temperature criteria was met.	X			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	X			
Were all samples analyzed within the 12 hour clock criteria?	X			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	X			
Were all percent relative standard deviations (%RSD) and relative response factors (RFF) within method criteria for all CCCs and SPCCs?	X			
Was a curve fit used for evaluation? If yes, what was the acceptance criteria used?	X			$r^2 < 0.99$
Did the initial calibration meet the curve fit acceptance criteria?	X			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?		X		See Worksheet
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	X			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	X			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		X		See worksheet
V. Blanks				
Was a method blank associated with every sample in this SDG?	X			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	X			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	X			See Worksheet
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	X			
If the percent recovery (%R) for one of more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?				
VII. Matrix spike/matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in the SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		X		Site Specific MS/MSD Not Analyzed Soil
Was a MS/MSD analyzed every 20 samples of each matrix?	X			analyze run log

LDC#: Moray Phase II
SDG#: B212111

VALIDATION FINDINGS CHECKLIST

Reviewer: S. Kirchner

Method: Volatiles (EPA SW 846 Method 8260B)

Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			X	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	X			
Was an LCS analyzed per analytical batch?	X			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		X		See work sheet
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			X	
Were the performance evaluation (PE) samples within the acceptance limits?			X	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?		X		See work sheet
Were retention times within +/- 30 seconds of the associated calibration standard?	X			
XI. Target compound identification				
Were relative retention times (RRTs) within +/- 0.06 RRT units of the standard?	X			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	X			
Were chromatogram peaks verified and accounted for?	X			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	X			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	X			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	X			
Were relative intensities of the major ions within +/- 20% between the sample and the reference spectra?	X			
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	X			
XIV. System performance				
System performance was found to be acceptable.	X			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	X			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		X		
Target compounds were detected in the field duplicates.			X	
XVII. Field blanks				
Field blanks were identified in this SDG.	X			
Target compounds were detected in the field blanks.			X	

Crosswalk - Worksheet ID vs. Compound Name

Worksheet ID *ES3	Compound Name	CAS No.	System Performance
A	Dichlorodifluoromethane	75-71-8	SPCC (%RSD)
B	Chloromethane	74-87-3	
C	VinylChloride	75-01-4	CCC (RRF)
D	Bromomethane	74-83-9	
E	Chloroethane	75-00-3	
F	Trichlorofluoromethane	75-69-4	
G	1,1-Dichloroethene	75-35-4	CCC (RRF)
H	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	
I	Acetone	67-64-1	
J	CarbonDisulfide	75-15-0	
K	MethylAcetate	79-20-9	
L	MethyleneChloride	75-09-2	
M	trans-1,2-Dichloroethene	156-60-5	
N	tert-ButylMethylEther	1634-04-4	
O	1,1-Dichloroethane	75-34-3	SPCC (%RSD)
P	cis-1,2-Dichloroethene	156-59-2	
Q	2-Butanone	78-93-3	
R	Bromochloromethane	74-97-5	
S	Chloroform	67-66-3	CCC (RRF)
T	1,1,1-Trichloroethane	71-55-6	
U	Cyclohexane	110-82-7	
V	CarbonTetrachloride	56-23-5	
W	Benzene	71-43-2	
X	1,2-Dichloroethane	107-06-2	
Y	Trichloroethene	79-01-6	
Z	Methylcyclohexane	108-87-2	
AA	1,2-Dichloropropane	78-87-5	CCC (RRF)
BB ✓	Bromodichloromethane	75-27-4	
CC	cis-1,3-Dichloropropene	10061-01-5	
DD	4-Methyl-2-pentanone	108-10-1	
EE	Toluene	108-88-3	CCC (RRF)
FF	trans-1,3-Dichloropropene	10061-02-6	
GG	1,1,2-Trichloroethane	79-00-5	
HH ✓	Tetrachloroethene	127-18-4	
II	2-Hexanone	591-78-6	
JJ	Dibromochloromethane	124-48-1	
KK ✓	1,2-Dibromoethane	106-93-4	
LL ✓	Chlorobenzene	108-90-7	SPCC (%RSD)
MM ✓	Ethylbenzene	100-41-4	CCC (RRF)
NN ✓	Xylenes(total)	1330-20-7	
OO ✓	Styrene	100-42-5	
PP ✓	Bromoform	75-25-2	SPCC (%RSD)
QQ	Isopropylbenzene	98-82-8	
RR	1,1,2,2-Tetrachloroethane	79-34-5	SPCC (%RSD)
SS	1,3-Dichlorobenzene	541-73-1	
TT	1,4-Dichlorobenzene	106-46-7	
UU	1,2-Dichlorobenzene	95-50-1	
VV	1,2-Dibromo-3-chloropropane	96-12-8	
WW	1,2,4-Trichlorobenzene	120-82-1	
XX	1,2,4-Trichlorobenzene	87-61-6	
YY			
ZZ			
AAA			
BBB			
CCC			

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Morrow Phase II SDG: B212111

Instrument ID: GCMS-3 DATE ANALYZED: 12/9 BFB Tune OK? (YES) NO

Sample Number	Hold Time		Standards: (I, ↓; II=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
Chk-2120162 BS1 (LCS-1)										
Chk-2120162 BSD1 (LCS-2)										
BLK-2120162 BLK										
B212111-03										
-01										↓ NT
-02							↓	↓	↓	↓

MS/MSD OK? YES NO Comment:

LCS OK? YES (NO) Comment: LCS-1 JJ - 74.4%; GG - 72.4%; F - 282%
LCS-2 F - 346%

IC Date: ~~11/9~~ 11/5 CC Date: 12/9 Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	"J", "UJ", "R" (Hit/Non-Detect)
Bromomethane		40.24		39.3	J/UJ
Trichlorotrifluoroethane		37.79		62.4	↓
Acetone		62.22		64.5	↓
Carbon Disulfide				43.0	J/UJ
1,1,1-TCA				27.7	↓
Vinyl Acetate				54.7	↓
2-Butanone			0.014	73.1	J/R
4-methyl-2-pentanone				74.4	↓
1,1,2-Trichloroethane				27.4	↓
2-Hexanone				76.4	↓
1,3-Dichloropropane				32.0	NT
Chlorodibromomethane				25.5	J/UJ
Bromoform				38.8	
1,1,2,2-Tetrachloroethane				44.9	

METHOD BLANK: MeCl 13 FIELD BLANK: TRIP BLANK:

NT = non-target Compound

DV-worksheet-Method 8260B using calibration criteria from CLP National Functional Guidelines for Organic Reveiw-1999

MOR 08579

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Monsey Plaza II SDG: B212111

Instrument ID: GCMS-3 DATE ANALYZED: 12/10 BFB Tune OK? (YES) NO

Sample Number	Hold Time		Standards: (↑, ↓; ↓↓=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
Soil Blk										
Soil Blk										
Blk										
B212111-02 RE1										↓ NT

MS/MSD OK? YES NO Comment:

LCS OK? (YES) NO Comment:

IC Date: 11/5 CC Date: 12/10 Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	"J", "UJ", "R" (Hit/Non-Detect)
Bromomethane		40.24		39.5	J/UJ
Trichlorofluoromethane		37.78		88.1	↓
Acetone		62.22		69.4	↓
Chloroform				39.5	J/UJ
Carbon Disulfide				34.0	↓
1,1,1-Trichloroethane				41.5	↓
Vinyl Acetate				51.9	↓
2-Butanone			0.017	67.3	J/R
Carbon Tetrachloride				32.7	J/UJ
Trichloroethene				37.8	↓
4-methyl-2-pentanone				68.7	↓
2-Hexanone				72.1	↓
Xylenes				30.8	↓
Bromoform				~~136.82~~ 5/7	↓
1,1,2,2-Tetrachloroethane				~~86.7~~ 32.4	↓

METHOD BLANK: FIELD BLANK: TRIP BLANK:

NT = non target Compound

DV-worksheet-Method 8260B using calibration criteria from CLP National Functional Guidelines for Organic Reveiw-1999

MOR 08580

Lab Response

GREAT LAKES ANALYTICAL

1380 Busch Parkway
Buffalo Grove, Illinois 60089

Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772

September 8, 2005

Re: Questions on data package B212111

The following are answers to the questions outlined in an Email on September 7, 2005 to Andy Johnson.

1. & 2. The control limits found on the final report are the limits used for data evaluation. The limits on the raw data's QA/QC Report are not accurate. This form is mainly used by the analysts to check internal standard recoveries and 12 hour clock issues. Surrogates are evaluated against limits in the Laboratory Information Management System (LIMS). The LIMS is what is used to create the final report. Although the SOP in place at the time of the analysis did not explain this issue, the current revision does include this explanation.

3. The surrogate in question is Toluene-d8. Attached are the original quantitation reports, without any manual integration. I have also included a zoomed in view of the integration on the original and then on the manual. You can clearly see that there was slight peak tailing during these analyses so the manual integration was justified. If no manual integrations were performed on the surrogate, the limits would still have been met; therefore, the manual integrations were not performed to force recoveries within the established limits.

4. The following equation is used:

$$\textit{Concentration } (\mu g/Kg, \textit{ dry}) = \frac{C \times DF \times V}{W \times X}$$

Where:
C = On-Column concentration (ppb)
DF =Dilution factor.
V = final volume (ml).
W= amount of soil (g).
X= Percent solids (in decimal form; ex., 90%=0.90)

Therefore, using sample B212111-01 acetone:

C= 20.99 ppb
DF= 1
V= 5.0 ml
W= 6.53g
X= 0.865

$$\text{Concentration (ug/Kg, dry)} = \frac{20.99 \text{ ng/ml} \times 1 \times 5.0\text{ml}}{6.53\text{g} \times 0.865} = 18.58$$

Then, the reporting limit (RL) is also adjusted for the sample weight and percent solids:

Original RL (ug/Kg) = 25 ug/Kg

$$\text{Corrected RL (ug/Kg, dry)} = \frac{25 \times 5.0}{6.53 \times 0.865} = 22.13$$

The result of 18.58 is less than the RL of 22.13; therefore, the analyte is reported as ND.

If you have any other questions, please feel free to contact me directly. Have a great day!

Sincerely,

James Knapp
Quality Assurance Manager
jknapp@glalabs.com

MOR 08581

Quantitation Report (Not Reviewed)

Data File : D:\MS1RES~1\005.D
Acq On : 9 Dec 2002 15:04
Sample : b212111-01
Misc :

Vial: 5
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

MS Integration Params: rteint.p
Quant Time: Sep 8 11:44 2005

Quant Results File: 3110202S.RES

Quant Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 10:28:48 2005
Response via : Initial Calibration
DataAcq Meth : 3110202S

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	17.81	168	470572	50.00	ppb		0.00
27) 1,4-Difluorobenzene	19.36	114	900941	50.00	ppb		0.00
49) Chlorobenzene-d5	24.97	82	398141	50.00	ppb		0.02
63) 1,4-Dichlorobenzene-d4	29.28	152	140536	50.00	ppb		0.02
System Monitoring Compounds							
25) Dibromofluoromethane	17.71	111	316379	52.92	ppb		0.00
Spiked Amount 50.000	Range 91 - 111		Recovery = 105.84%				
30) 1,2-Dichloroethane-d4	18.50	65	308694	54.22	ppb		0.00
Spiked Amount 50.000	Range 85 - 104		Recovery = 108.44%#				
44) Toluene-d8	22.21	98	914481	49.14	ppb		0.00
Spiked Amount 50.000	Range 95 - 105		Recovery = 98.28%				
61) 4-Bromofluorobenzene	27.14	95	268005	40.68	ppb		0.02
Spiked Amount 50.000	Range 90 - 105		Recovery = 81.36%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	5.36	85	1255	0.09	ppb	#	42
3) Chloromethane	5.80	50	2449	0.25	ppb	#	42
11) Acetone	11.55	43	89120	21.69	ppb		89
13) Carbon disulfide	11.78	76	5133	0.18	ppb	#	75
15) Methylene chloride	13.02	84	49847	0.93	ppb		98
23) Tetrahydrofuran	17.51	42	2222	0.71	ppb	#	35
24) Chloroform	17.64	83	271	0.02	ppb	#	1
29) 2-Butanone	16.64	72	307	0.32	ppb	#	1
31) Carbon tetrachloride	17.81	117	54014	5.50	ppb	#	7
32) 1,1-Dichloropropene	17.81	75	39777	3.51	ppb	#	44
33) Benzene	18.49	78	20039	0.64	ppb		98
39) Bromodichloromethane	20.89	83	123	0.01	ppb	#	26
40) 2-Nitropropane	21.58	43	775	0.23	ppb	#	1
42) 4-Methyl-2-pentanone	22.21	43	5834	0.77	ppb	#	1
45) Toluene	22.33	92	18344	0.99	ppb		97
48) 2-Hexanone	23.78	43	565	0.09	ppb	#	31
50) Tetrachloroethene	23.34	164	721	0.17	ppb	#	88
54) Chlorobenzene	25.01	112	604	0.04	ppb	#	27
56) Ethylbenzene	25.14	91	5988	0.21	ppb	#	87
57) m,p-Xylene	25.35	106	4593	0.49	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\MS1RES~1\005.D
Acq On : 9 Dec 2002 15:04
Sample : b212111-01
Misc :

Vial: 5
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

MS Integration Params: rteint.p
Quant Time: Sep 8 11:44 2005

Quant Results File: 3110202S.RES

Quant Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 10:28:48 2005
Response via : Initial Calibration
DataAcq Meth : 3110202S

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
58) o-Xylene	26.14	106	150	0.02	ppb	#	1
59) Styrene	26.18	104	886	0.06	ppb	#	30
64) Isopropylbenzene	26.74	105	2115	0.13	ppb	#	47
65) Bromobenzene	27.40	77	320	0.04	ppb	#	24
66) 1,2,3-Trichloropropane	27.49	75	375	0.09	ppb	#	45
67) n-Propylbenzene	27.47	91	9823	0.54	ppb	#	57
68) 2-Chlorotoluene	27.75	91	401	0.04	ppb	#	44
69) 1,3,5-Trimethylbenzene	27.81	105	2562	0.25	ppb	#	64
70) 4-Chlorotoluene	27.94	91	268	0.03	ppb	#	1
71) tert-Butylbenzene	28.42	119	488	0.04	ppb	#	37
72) 1,2,4-Trimethylbenzene	28.54	105	10935	1.08	ppb	#	52
73) sec-Butylbenzene	28.84	105	5072	0.33	ppb	#	56
74) 1,3-Dichlorobenzene	29.16	146	2859	0.54	ppb	#	65
75) p-Isopropyltoluene	29.12	119	1988	0.17	ppb	#	79
76) 1,4-Dichlorobenzene	29.31	146	3042	0.61	ppb	#	29
77) n-Butylbenzene	29.89	91	276	0.03	ppb	#	43
78) 1,2-Dichlorobenzene	29.97	146	814	0.17	ppb	#	23
80) 1,2,4-Trichlorobenzene	32.30	180	3456	1.62	ppb		96
82) Naphthalene	32.74	128	12688	1.90	ppb	#	74
83) 1,2,3-Trichlorobenzene	33.08	180	3557	1.77	ppb	#	93

MOR 08583

(#) = qualifier out of range (m) = manual integration

Quantitation Report

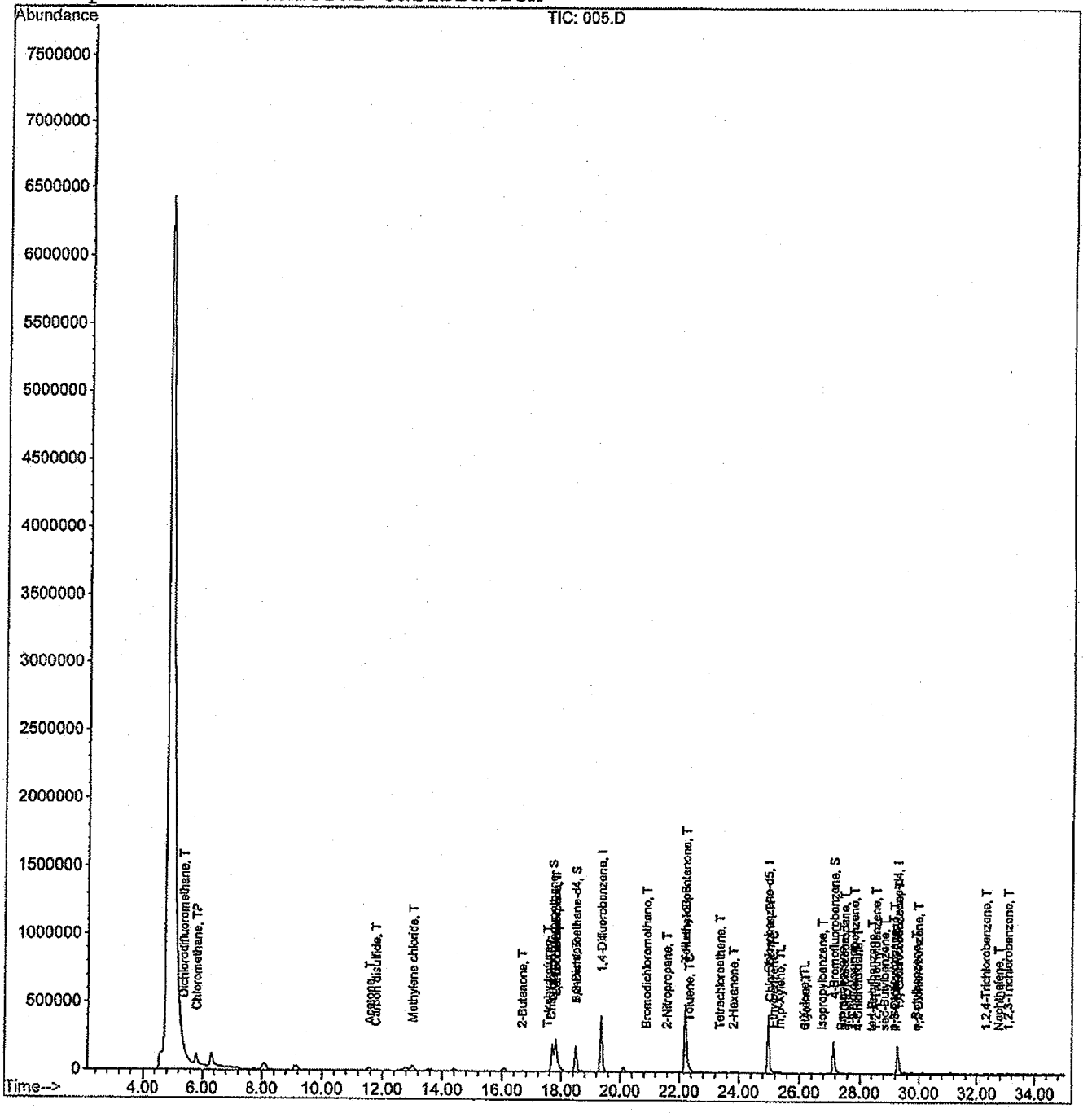
Data File : D:\MS1RES~1\005.D
Acq On : 9 Dec 2002 15:04
Sample : b212111-01
Misc :

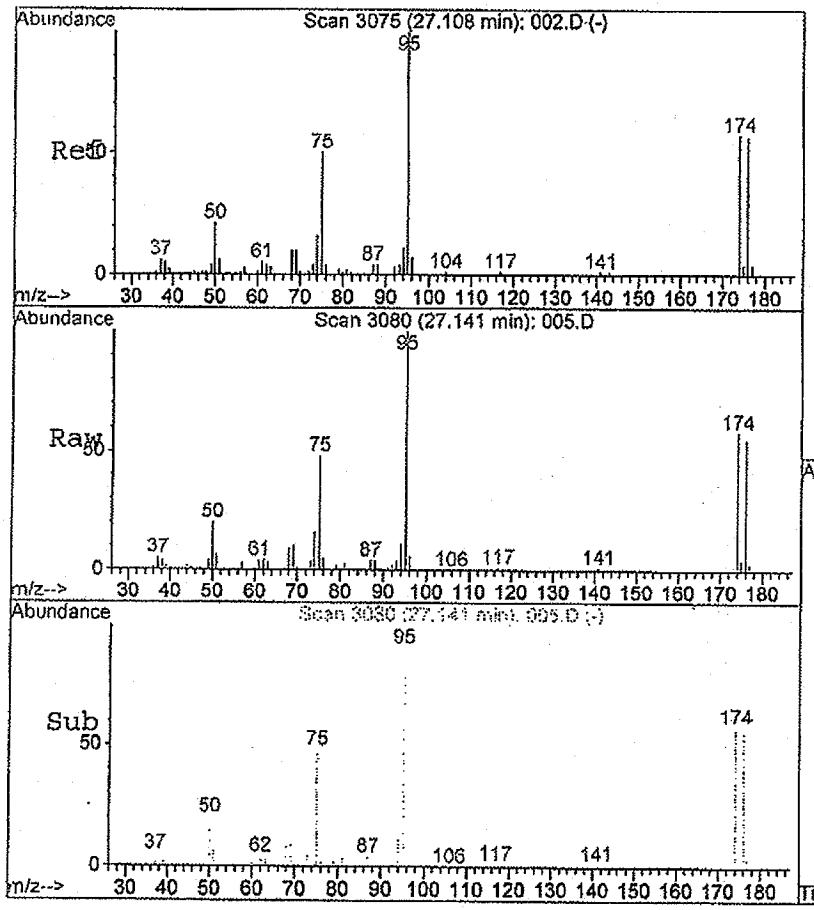
Vial: 5
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

MS Integration Params: rteint.p
Quant Time: Sep 8 11:44 2005

Quant Results File: 3110202S.RES

Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 11:43:54 2005
Response via : Initial Calibration

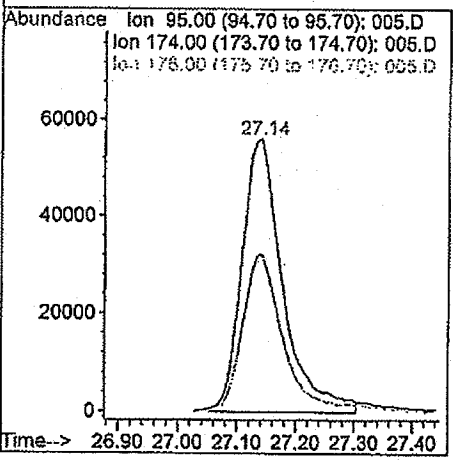




#61
4-Bromofluorobenzene
Concen: 40.68 ppb
RT: 27.14 min Scan# 3080
Delta R.T. 0.02 min
Lab File: 005.D
Acq: 9 Dec 2002 15:04

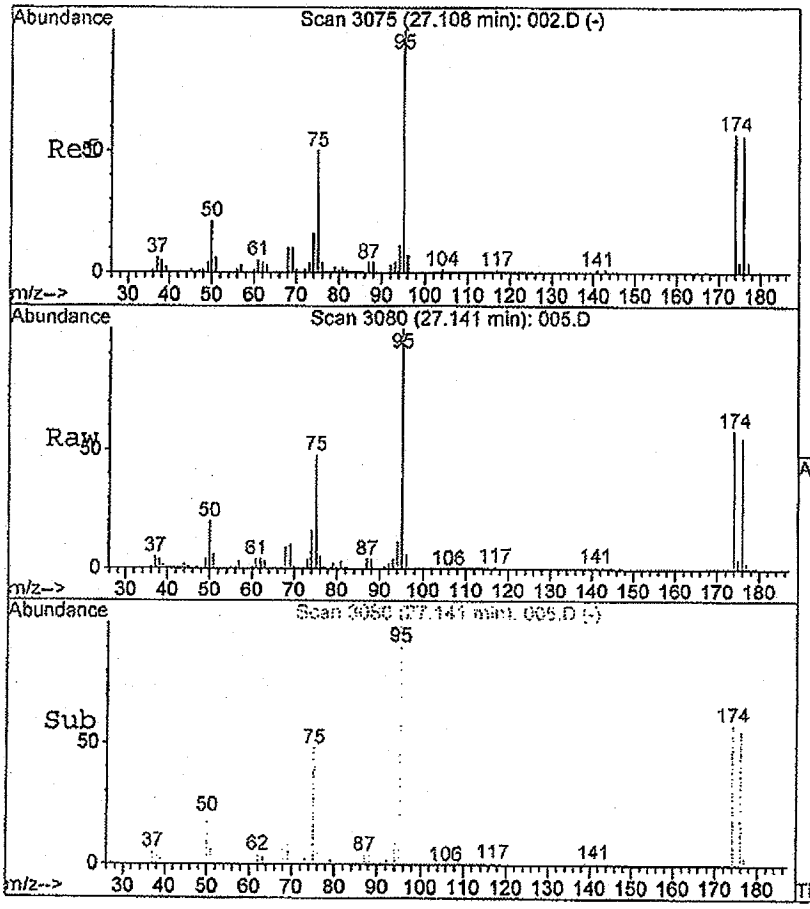
Tgt Ion: 95 Resp: 268005

Ion	Ratio	Lower	Upper
95	100		
174	56.3	57.4	86.2#
176	54.7	56.1	84.1#



original

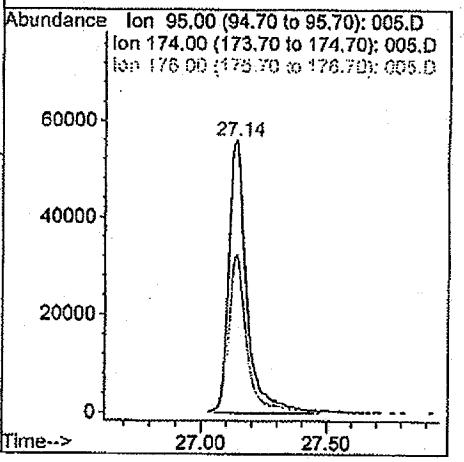
MOR 08585



#61
4-Bromofluorobenzene
Concen: 42.60 ppb m
RT: 27.14 min Scan# 3080
Delta R.T. 0.02 min
Lab File: 005.D
Acq: 9 Dec 2002 15:04

Tgt Ion: 95 Resp: 280655

Ion	Ratio	Lower	Upper
95	100		
174	53.8	49.2	73.8
176	52.3	46.6	69.8



Manual Integration

MOR 08586

Quantitation Report (Not Reviewed)

Data File : D:\MS1RES~1\004.D
Acq On : 10 Dec 2002 12:11
Sample : b212111-02RE1
Misc :

Vial: 4
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

MS Integration Params: rteint.p
Quant Time: Sep 8 11:52 2005

Quant Results File: 3110202S.RES

Quant Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 10:28:48 2005
Response via : Initial Calibration
DataAcq Meth : 3110202S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.79	168	443036	50.00	ppb	-0.03
27) 1,4-Difluorobenzene	19.34	114	876058	50.00	ppb	-0.01
49) Chlorobenzene-d5	24.95	82	435937	50.00	ppb	0.00
63) 1,4-Dichlorobenzene-d4	29.26	152	160327	50.00	ppb	0.00
System Monitoring Compounds						
25) Dibromofluoromethane	17.68	111	302763	53.79	ppb	-0.03
Spiked Amount 50.000	Range 91 - 111		Recovery = 107.58%			
30) 1,2-Dichloroethane-d4	18.48	65	298407	53.90	ppb	-0.02
Spiked Amount 50.000	Range 85 - 104		Recovery = 107.80%#			
44) Toluene-d8	22.19	98	904646	49.99	ppb	-0.01
Spiked Amount 50.000	Range 95 - 105		Recovery = 99.98%			
61) 4-Bromofluorobenzene	27.12	95	292359	40.53	ppb	0.00
Spiked Amount 50.000	Range 90 - 105		Recovery = 81.06%#			
Target Compounds						Qvalue
3) Chloromethane	5.80	50	3734	0.40	ppb	# 42
11) Acetone	11.55	43	84645	21.88	ppb	89
15) Methylene chloride	13.01	84	36951	-0.50	ppb	96
23) Tetrahydrofuran	17.19	42	148	0.05	ppb	# 35
24) Chloroform	17.62	83	167	0.01	ppb	# 18
29) 2-Butanone	16.67	72	140	0.15	ppb	# 1
31) Carbon tetrachloride	17.79	117	54827	5.74	ppb	# 7
32) 1,1-Dichloropropene	17.79	75	32144	2.92	ppb	# 45
33) Benzene	18.47	78	16816	0.56	ppb	99
39) Bromodichloromethane	20.87	83	2957	0.33	ppb	# 26
40) 2-Nitropropane	21.59	43	7198	2.23	ppb	# 52
42) 4-Methyl-2-pentanone	22.19	43	5605	0.76	ppb	# 1
45) Toluene	22.32	92	15081	0.83	ppb	98
47) 1,1,2-Trichloroethane	23.41	83	1871	0.38	ppb	# 6
48) 2-Hexanone	23.79	43	235	0.04	ppb	# 31
50) Tetrachloroethene	23.30	164	266	0.06	ppb	# 34
54) Chlorobenzene	25.02	112	1417	0.08	ppb	# 27
56) Ethylbenzene	25.12	91	5042	0.16	ppb	# 37
57) m,p-Xylene	25.33	106	6046	0.59	ppb	# 68
58) o-Xylene	26.10	106	2115	0.21	ppb	# 35

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\MS1RES~1\004.D
Acq On : 10 Dec 2002 12:11
Sample : b212111-02RE1
Misc :

Vial: 4
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

MS Integration Params: rteint.p
Quant Time: Sep 8 11:52 2005

Quant Results File: 3110202S.RES

Quant Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 10:28:48 2005
Response via : Initial Calibration
DataAcq Meth : 3110202S

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
59)	Styrene	26.16	104	1249	0.07	ppb		87
62)	1,1,2,2-Tetrachloroethane	27.47	83	127	0.02	ppb	#	24
64)	Isopropylbenzene	26.70	105	5126	0.27	ppb	#	52
65)	Bromobenzene	27.42	77	2621	0.27	ppb	#	32
66)	1,2,3-Trichloropropane	27.48	75	323	0.07	ppb	#	45
67)	n-Propylbenzene	27.48	91	11646	0.56	ppb	#	79
68)	2-Chlorotoluene	27.71	91	1146	0.09	ppb	#	63
69)	1,3,5-Trimethylbenzene	27.82	105	2058	0.17	ppb	#	67
70)	4-Chlorotoluene	27.95	91	1452	0.12	ppb	#	43
71)	tert-Butylbenzene	28.38	119	4839	0.37	ppb	#	44
72)	1,2,4-Trimethylbenzene	28.52	105	17365	1.51	ppb	#	83
73)	sec-Butylbenzene	28.80	105	2612	0.15	ppb	#	79
74)	1,3-Dichlorobenzene	29.13	146	2308	0.38	ppb	#	45
75)	p-Isopropyltoluene	29.03	119	12418	0.95	ppb	#	76
76)	1,4-Dichlorobenzene	29.31	146	2969	0.52	ppb	#	25
77)	n-Butylbenzene	29.90	91	1347	0.13	ppb	#	30
78)	1,2-Dichlorobenzene	30.02	146	126	0.02	ppb	#	24
79)	1,2-Dibromo-3-chloropropan	31.08	75	126	0.14	ppb	#	2
80)	1,2,4-Trichlorobenzene	32.26	180	4420	1.81	ppb	#	93
82)	Naphthalene	32.71	128	17816	2.34	ppb	#	83
83)	1,2,3-Trichlorobenzene	33.03	180	5368	2.34	ppb		94

MOR 08588

(#) = qualifier out of range (m) = manual integration

Quantitation Report

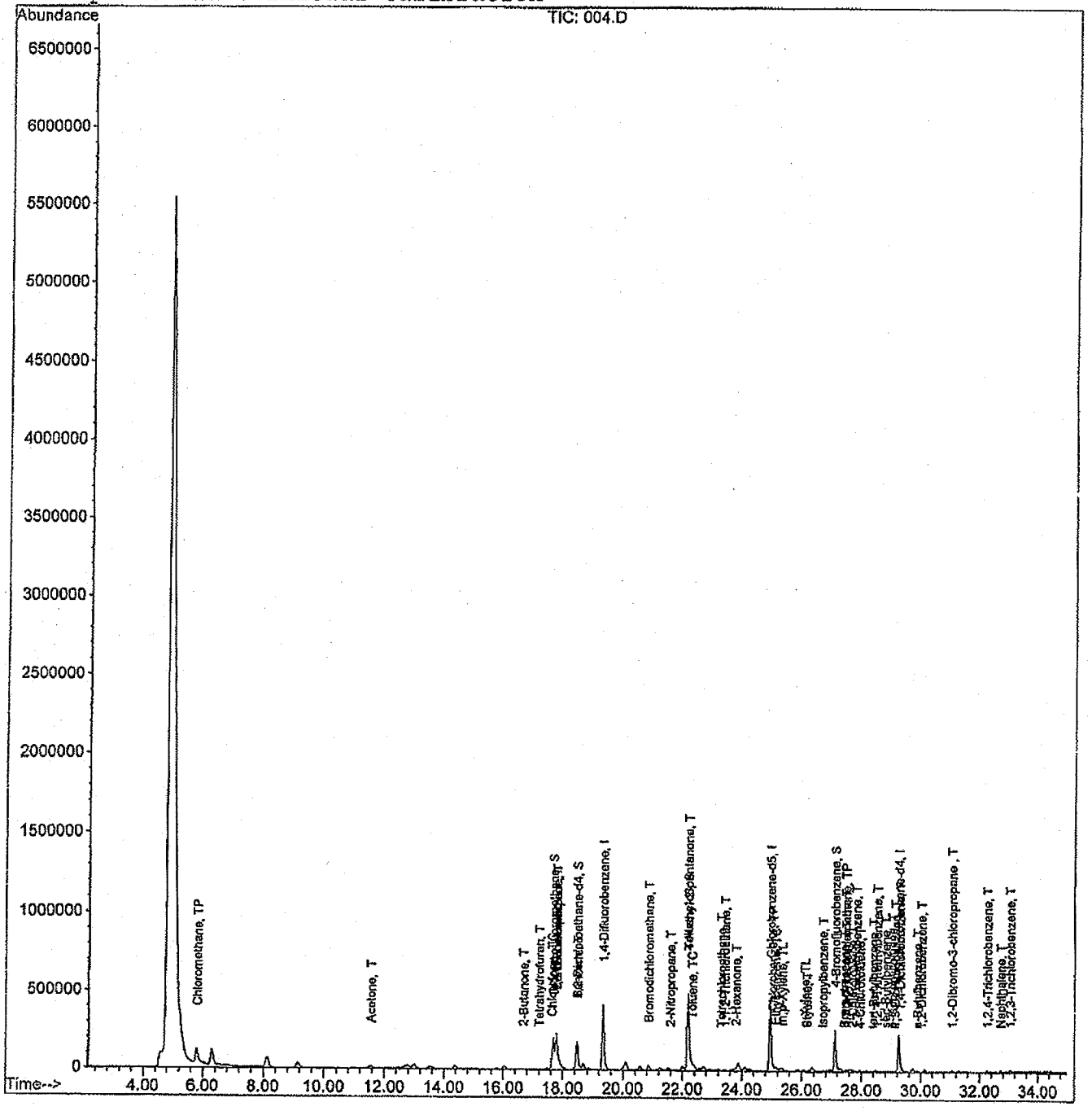
Data File : D:\MS1RES~1\004.D
Acq On : 10 Dec 2002 12:11
Sample : b212111-02RE1
Misc :

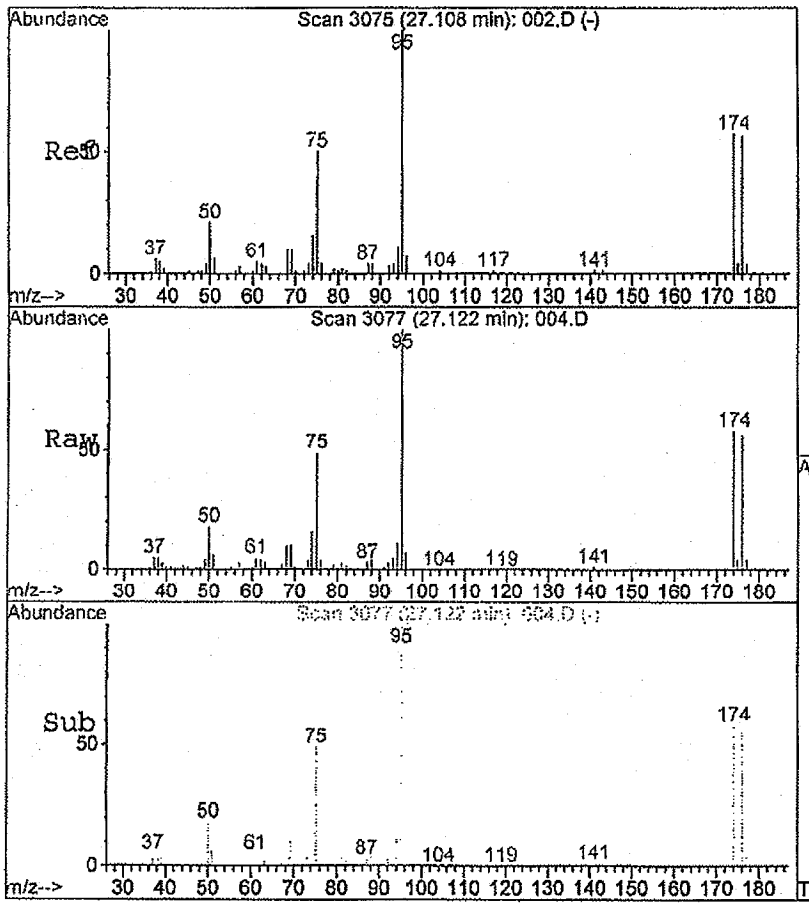
Vial: 4
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

MS Integration Params: rteint.p
Quant Time: Sep 8 11:52 2005

Quant Results File: 3110202S.RES

Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 11:51:56 2005
Response via : Initial Calibration

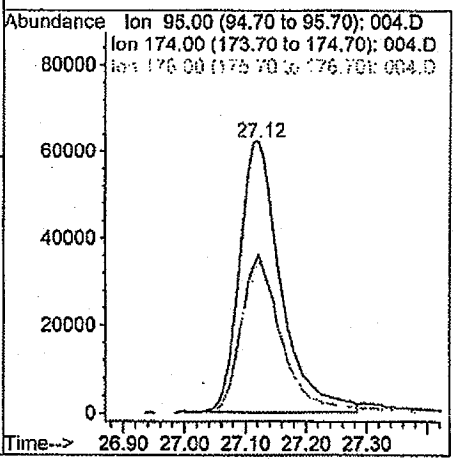




#61
4-Bromofluorobenzene
Concen: 40.53 ppb
RT: 27.12 min Scan# 3077
Delta R.T. 0.00 min
Lab File: 004.D
Acq: 10 Dec 2002 12:11

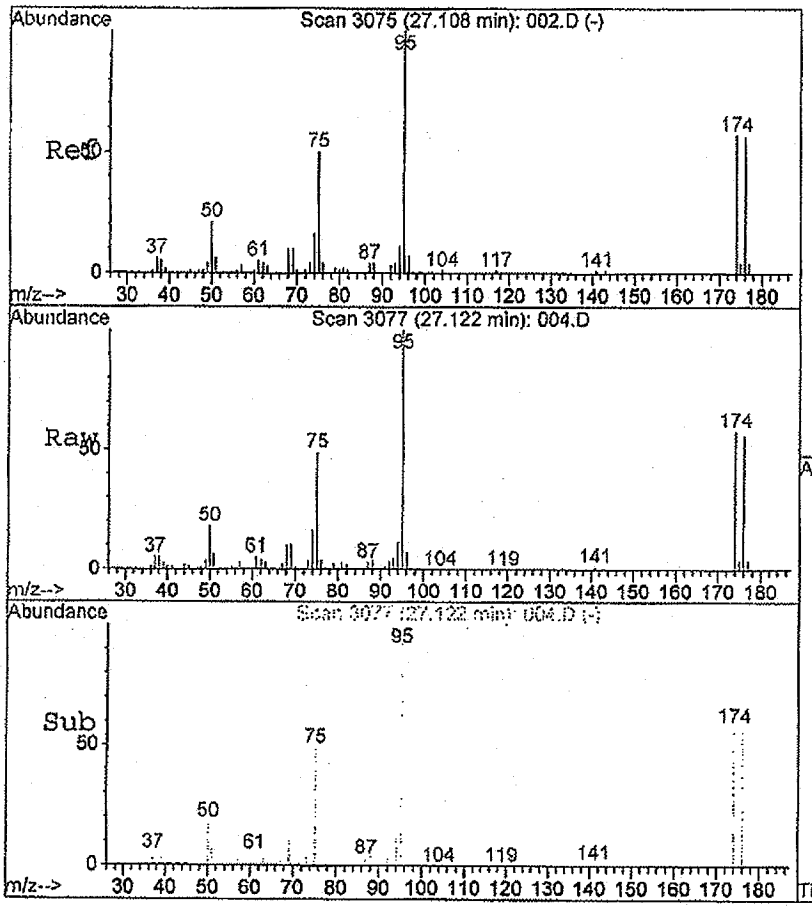
Tgt Ion: 95 Resp: 292359

Ion	Ratio	Lower	Upper
95	100		
174	57.1	57.4	86.2#
176	54.3	56.1	84.1#



Original

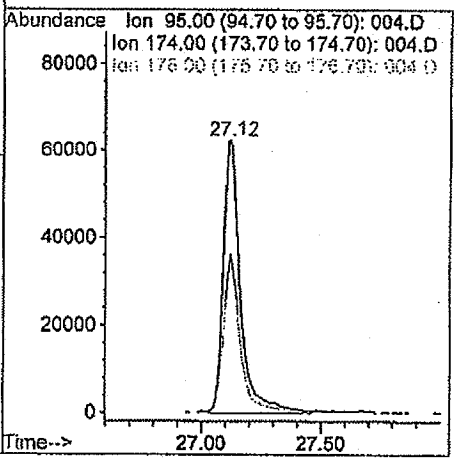
MOR 08590



#61
4-Bromofluorobenzene
Concen: 43.53 ppb m
RT: 27.12 min Scan# 3077
Delta R.T. 0.00 min
Lab File: 004.D
Acq: 10 Dec 2002 12:11

Tgt Ion: 95 Resp: 313991

Ion	Ratio	Lower	Upper
95	100		
174	53.2	49.2	73.8
176	50.6	46.6	69.8



manual integration

MOR 08591

Quantitation Report (Not Reviewed)

Data File : D:\MS1RES~1\004.D
Acq On : 9 Dec 2002 14:15
Sample : b212111-03
Misc :

Vial: 4
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

MS Integration Params: rteint.p
Quant Time: Sep 8 11:32 2005

Quant Results File: 3110202S.RES

Quant Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 10:28:48 2005
Response via : Initial Calibration
DataAcq Meth : 3110202S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	17.82	168	453921	50.00	ppb	0.01
27) 1,4-Difluorobenzene	19.37	114	890971	50.00	ppb	0.01
49) Chlorobenzene-d5	24.97	82	431772	50.00	ppb	0.02
63) 1,4-Dichlorobenzene-d4	29.28	152	202888	50.00	ppb	0.02
System Monitoring Compounds						
25) Dibromofluoromethane	17.72	111	301453	52.27	ppb	0.01
Spiked Amount 50.000	Range 91 - 111		Recovery = 104.54%			
30) 1,2-Dichloroethane-d4	18.51	65	291305	51.73	ppb	0.01
Spiked Amount 50.000	Range 85 - 104		Recovery = 103.46%			
44) Toluene-d8	22.21	98	924330	50.23	ppb	0.02
Spiked Amount 50.000	Range 95 - 105		Recovery = 100.46%			
61) 4-Bromofluorobenzene	27.13	95	333957	46.74	ppb	0.01
Spiked Amount 50.000	Range 90 - 105		Recovery = 93.48%			
Target Compounds						Qvalue
3) Chloromethane	5.87	50	2032	0.21	ppb	# 42
5) Bromomethane	7.29	94	127	0.03	ppb	# 1
11) Acetone	11.05	43	2514	0.63	ppb	# 41
15) Methylene chloride	13.05	84	43321	0.26	ppb	97
23) Tetrahydrofuran	17.52	42	970	0.32	ppb	# 35
24) Chloroform	17.68	83	396	0.03	ppb	# 1
29) 2-Butanone	16.72	72	888	0.95	ppb	# 1
31) Carbon tetrachloride	17.82	117	56599	5.83	ppb	# 5
32) 1,1-Dichloropropene	18.03	75	1027	0.09	ppb	# 42
33) Benzene	18.51	78	17481	0.57	ppb	95
40) 2-Nitropropane	21.63	43	1293	0.39	ppb	# 62
42) 4-Methyl-2-pentanone	22.21	43	5526	0.73	ppb	# 1
45) Toluene	22.34	92	15268	0.83	ppb	94
48) 2-Hexanone	23.81	43	328	0.05	ppb	# 31
50) Tetrachloroethene	23.33	164	931	0.20	ppb	# 70
54) Chlorobenzene	25.03	112	1369	0.08	ppb	# 27
56) Ethylbenzene	25.13	91	5017	0.16	ppb	90
57) m,p-Xylene	25.35	106	4361	0.43	ppb	# 58
58) o-Xylene	26.11	106	991	0.10	ppb	# 1
59) Styrene	26.18	104	1579	0.09	ppb	# 76

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\MS1RES~1\004.D
Acq On : 9 Dec 2002 14:15
Sample : b212111-03
Misc :

Vial: 4
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

MS Integration Params: rteint.p
Quant Time: Sep 8 11:32 2005

Quant Results File: 3110202S.RES

Quant Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 10:28:48 2005
Response via : Initial Calibration
DataAcq Meth : 3110202S

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
64) Isopropylbenzene	26.72	105	1120	0.05	ppb	#	47
65) Bromobenzene	27.43	77	2039	0.16	ppb	#	43
66) 1,2,3-Trichloropropane	27.52	75	575	0.10	ppb	#	45
67) n-Propylbenzene	27.47	91	7955	0.30	ppb	#	68
68) 2-Chlorotoluene	27.72	91	2159	0.13	ppb	#	44
69) 1,3,5-Trimethylbenzene	27.82	105	4052	0.27	ppb		92
70) 4-Chlorotoluene	27.96	91	4947	0.33	ppb	#	56
71) tert-Butylbenzene	28.42	119	2065	0.12	ppb	#	75
72) 1,2,4-Trimethylbenzene	28.53	105	11620	0.80	ppb		87
73) sec-Butylbenzene	28.82	105	2202	0.10	ppb	#	69
74) 1,3-Dichlorobenzene	29.16	146	4314	0.56	ppb		91
75) p-Isopropyltoluene	29.04	119	11851	0.72	ppb	#	58
76) 1,4-Dichlorobenzene	29.32	146	4083	0.56	ppb	#	1
77) n-Butylbenzene	29.91	91	1265	0.10	ppb	#	30
78) 1,2-Dichlorobenzene	29.91	146	3994	0.58	ppb	#	31
79) 1,2-Dibromo-3-chloropropan	31.09	75	166	0.15	ppb	#	2
80) 1,2,4-Trichlorobenzene	32.38	180	275	0.09	ppb	#	18
82) Naphthalene	32.80	128	5001	0.52	ppb	#	71
83) 1,2,3-Trichlorobenzene	33.06	180	4569	1.57	ppb		92

MOR 08593

(#) = qualifier out of range (m) = manual integration

Quantitation Report

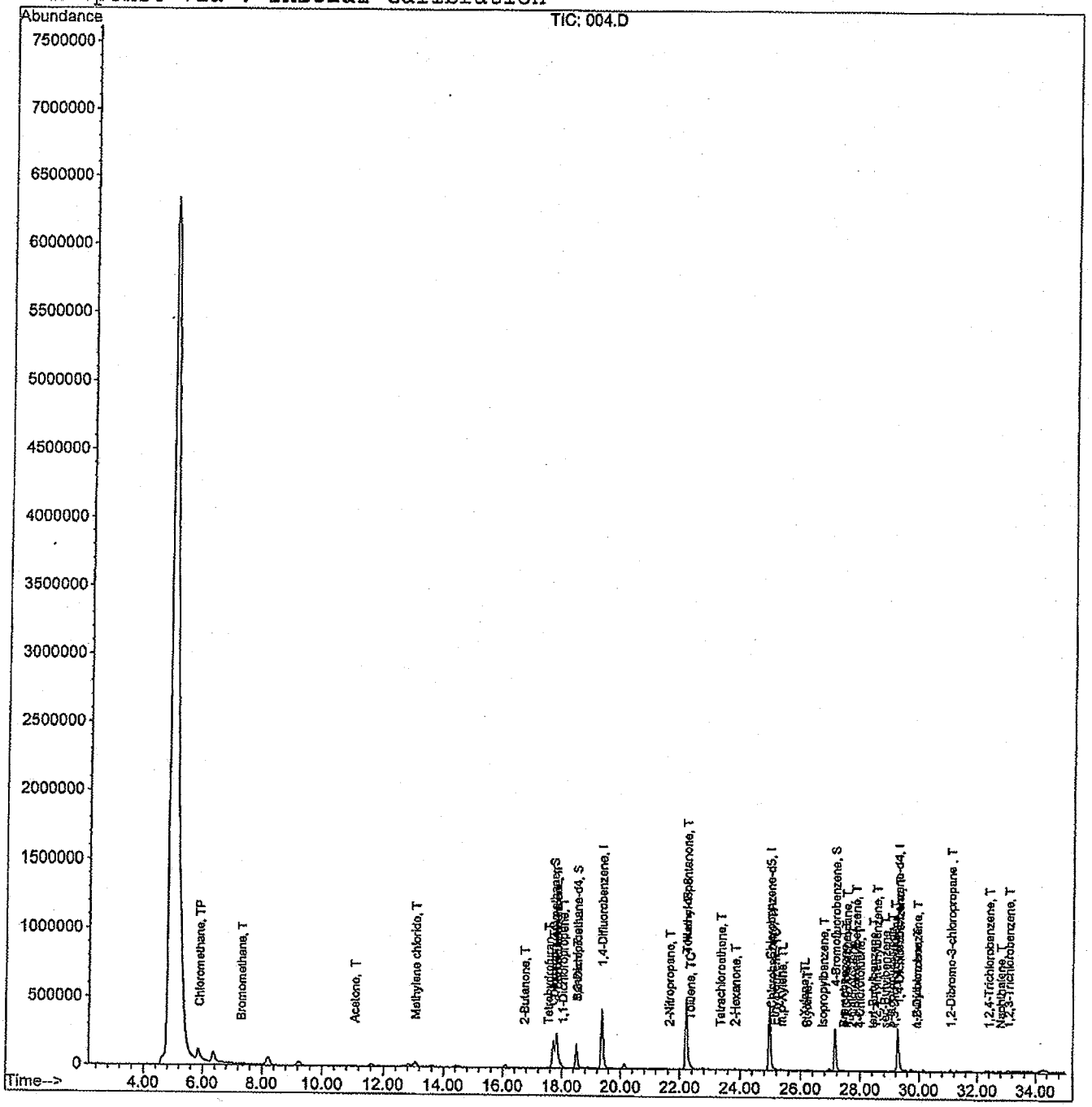
Data File : D:\MS1RES~1\004.D
Acq On : 9 Dec 2002 14:15
Sample : b212111-03
Misc :

Vial: 4
Operator: EU
Inst : GC/MS 3
Multiplr: 1.00
Sample Amount: 0.00

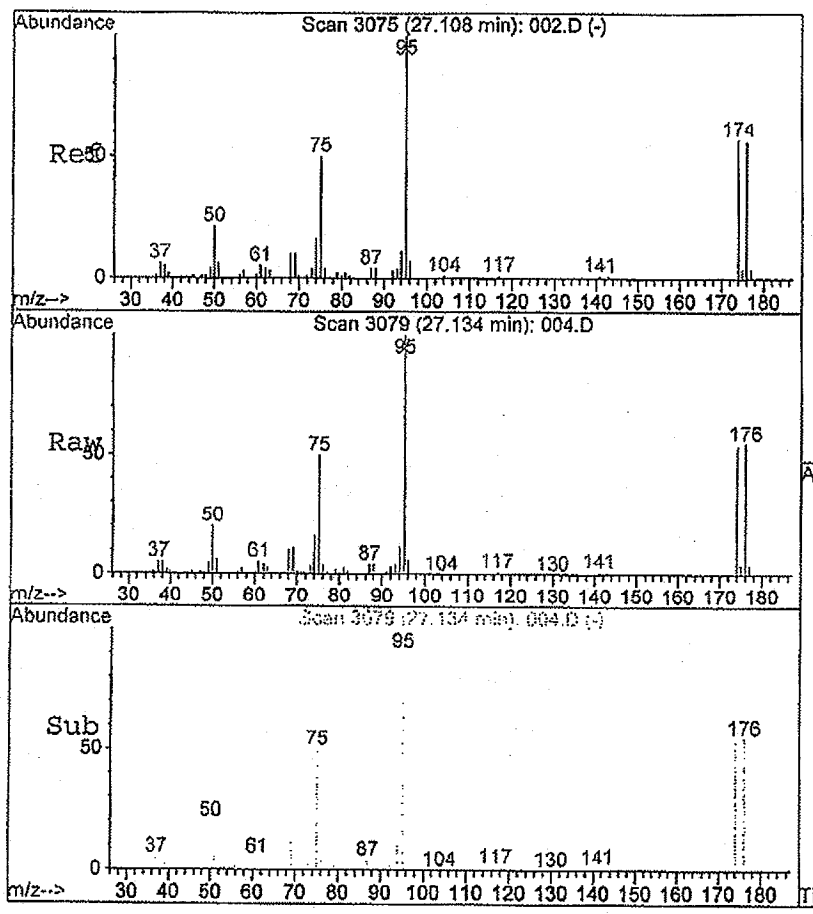
MS Integration Params: rteint.p
Quant Time: Sep 8 11:32 2005

Quant Results File: 3110202S.RES

Method : D:\MS1RES~1\3110202S.M (RTE Integrator)
Title : GCMS-3 Calibration Source:2100120
Last Update : Thu Sep 08 11:31:44 2005
Response via : Initial Calibration



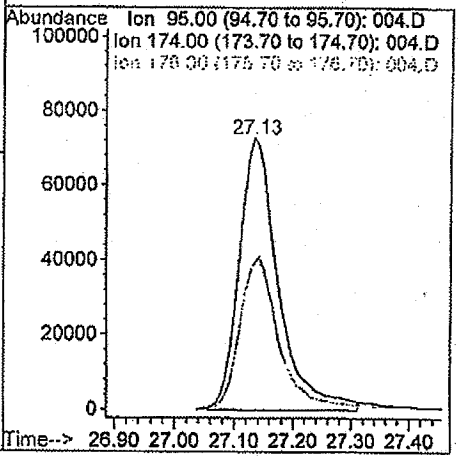
MOR 08594



#61
4-Bromofluorobenzene
Concen: 46.74 ppb
RT: 27.13 min Scan# 3079
Delta R.T. 0.01 min
Lab File: 004.D
Acq: 9 Dec 2002 14:15

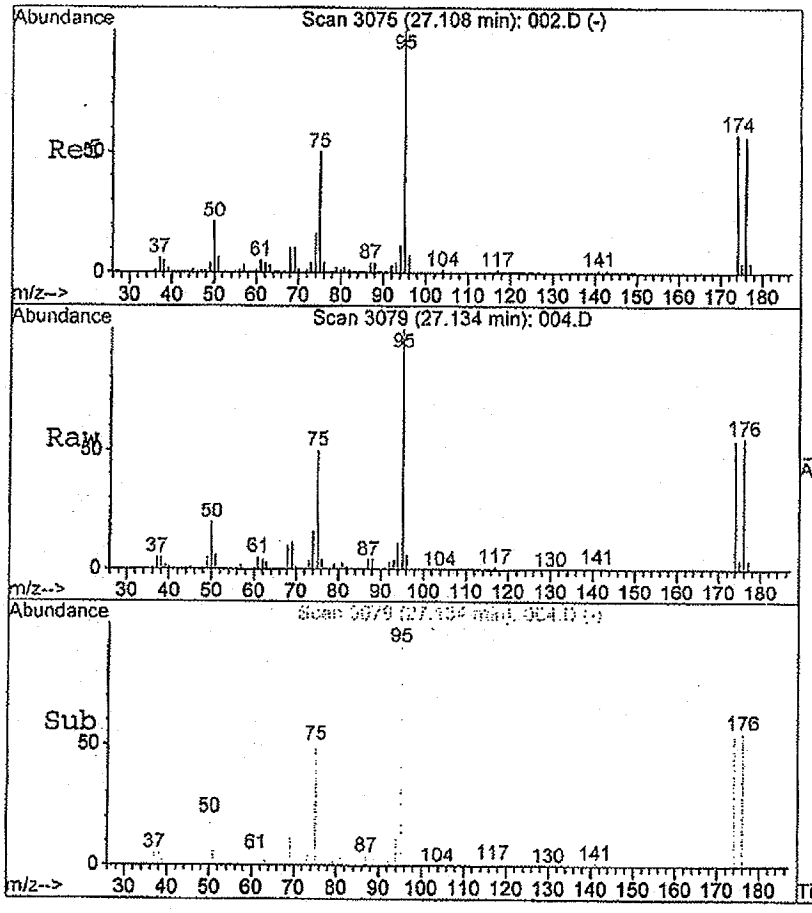
Tgt Ion: 95 Resp: 333957

Ion	Ratio	Lower	Upper
95	100		
174	56.2	57.4	86.2#
176	54.5	56.1	84.1#



Original

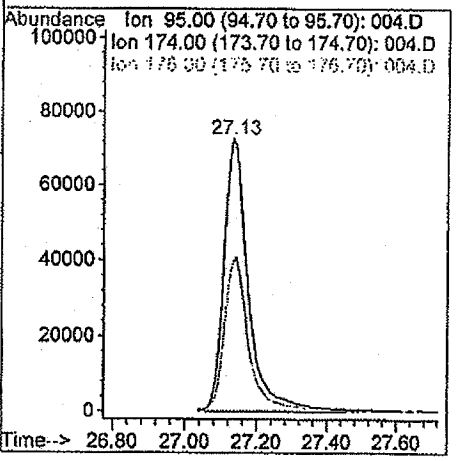
MOR 08595



#61
4-Bromofluorobenzene
Concen: 48.06 ppb m
RT: 27.13 min Scan# 3079
Delta R.T. 0.02 min
Lab File: 004.D
Acq: 9 Dec 2002 14:15

Tgt Ion: 95 Resp: 343351

Ion	Ratio	Lower	Upper
95	100		
174	54.6	49.2	73.8
176	53.0	46.6	69.8



Manual Integration

MOR 08596

Qualified Data Reports

GREAT LAKES ANALYTICAL
1380 Busch Parkway
Buffalo Grove, Illinois 60089

COPY

Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772

CDM
125 S. Wacker Dr. Suite 600
Chicago IL, 60606

Project: Morey Phase II
Project Number: Morey P2
Project Manager: Mark Peters

Reported:
12/12/02 16:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MP-SB-01-1416	B212111-01	Soil	12/05/02 09:30	12/06/02 11:00
MP-SB-01-5254	B212111-02	Soil	12/05/02 12:05	12/06/02 11:00
MP-SB-01-7678	B212111-03	Soil	12/05/02 14:30	12/06/02 11:00

MOR 08598

Great Lakes Analytical--Buffalo Grove

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Andy Johnson

Andy Johnson, Project Manager

GREAT LAKES ANALYTICAL
1380 Busch Parkway
Buffalo Grove, Illinois 60089

COPY

Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772

CDM
125 S. Wacker Dr. Suite 600
Chicago IL, 60606

Project: Morey Phase II
Project Number: Morey P2
Project Manager: Mark Peters

Reported:
12/12/02 16:29

General Chemistry

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-01-1416 (B212111-01) Soil	**Sampled: 12/05/02 09:30**		**Received: 12/06/02 11:00**						
pH	**7.79**		pH Units	1	2120252	12/12/02	12/12/02	EPA 9045C	
MP-SB-01-5254 (B212111-02) Soil	**Sampled: 12/05/02 12:05**		**Received: 12/06/02 11:00**						
pH	**7.76**		pH Units	1	2120252	12/12/02	12/12/02	EPA 9045C	
MP-SB-01-7678 (B212111-03) Soil	**Sampled: 12/05/02 14:30**		**Received: 12/06/02 11:00**						
pH	**7.75**		pH Units	1	2120252	12/12/02	12/12/02	EPA 9045C	

MOR 08599

Great Lakes Analytical--Buffalo Grove

Andy Johnson

Andy Johnson, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

GREAT LAKES ANALYTICAL

1380 Busch Parkway
Buffalo Grove, Illinois 60089

Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772

COPY

CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:29

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-01-1416 (B212111-01) Soil	**Sampled: 12/05/02 09:30 Received: 12/06/02 11:00**								**QC**
Acetone	ND UJ	22.1	ug/kg dry	1	2120162	12/09/02	12/09/02	5035/8260B	
Benzene	ND	4.43	"	"	"	"	"	"	
Bromodichloromethane	ND	4.43	"	"	"	"	"	"	
Bromoform	ND UJ	4.43	"	"	"	"	"	"	
Bromomethane	ND UJ	4.43	"	"	"	"	"	"	
2-Butanone	~~ND UJ~~ R	~~8.85~~	"	"	"	"	"	"	
Carbon disulfide	ND UJ	4.43	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.43	"	"	"	"	"	"	
Chlorobenzene	ND	4.43	"	"	"	"	"	"	
Chlorodibromomethane	ND UJ	4.43	"	"	"	"	"	"	
Chloroethane	ND	4.43	"	"	"	"	"	"	
Chloroform	ND	4.43	"	"	"	"	"	"	
Chloromethane	ND	4.43	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.43	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.43	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.43	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.43	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.43	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.43	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.66	"	"	"	"	"	"	
Ethylbenzene	ND	4.43	"	"	"	"	"	"	
2-Hexanone	ND UJ	8.85	"	"	"	"	"	"	
Methylene chloride	ND	4.43	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND UJ	8.85	"	"	"	"	"	"	
Styrene	ND	4.43	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND UJ	4.43	"	"	"	"	"	"	
Tetrachloroethene	ND	4.43	"	"	"	"	"	"	
Toluene	ND	4.43	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND UJ	4.43	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND UJ	4.43	"	"	"	"	"	"	
Trichloroethene	ND	4.43	"	"	"	"	"	"	
Trichlorofluoromethane	ND UJ	4.43	"	"	"	"	"	"	
Vinyl acetate	ND UJ	8.85	"	"	"	"	"	"	
Vinyl chloride	ND	4.43	"	"	"	"	"	"	
Total Xylenes	ND	8.85	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*98.2 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.1 %*	*66.3-119*		"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

GREAT LAKES ANALYTICAL

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:29

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-01-5254 (B212111-02RE1) Soil	**Sampled: 12/05/02 12:05**		**Received: 12/06/02 11:00**						**QC,A-01**
Acetone	ND UJ	22.0	ug/kg dry	1	2120162	12/09/02	12/10/02	5035/8260B	
Benzene	ND	4.39	"	"	"	"	"	"	
Bromodichloromethane	ND	4.39	"	"	"	"	"	"	
Bromoform	ND UJ	4.39	"	"	"	"	"	"	
Bromomethane	ND UJ	4.39	"	"	"	"	"	"	
2-Butanone	SC 9/19/02 R ~~ND UJ~~	~~8.79~~	"	"	"	"	"	"	
Carbon disulfide	ND UJ	4.39	"	"	"	"	"	"	
Carbon tetrachloride	ND UJ	4.39	"	"	"	"	"	"	
Chlorobenzene	ND	4.39	"	"	"	"	"	"	
Chlorodibromomethane	ND	4.39	"	"	"	"	"	"	
Chloroethane	ND UJ	4.39	"	"	"	"	"	"	
Chloroform	ND	4.39	"	"	"	"	"	"	
Chloromethane	ND	4.39	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.39	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.39	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.39	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.39	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.39	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.39	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.64	"	"	"	"	"	"	
Ethylbenzene	ND	4.39	"	"	"	"	"	"	
2-Hexanone	ND UJ	8.79	"	"	"	"	"	"	
Methylene chloride	ND	4.39	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND UJ	8.79	"	"	"	"	"	"	
Styrene	ND	4.39	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND UJ	4.39	"	"	"	"	"	"	
Tetrachloroethene	ND	4.39	"	"	"	"	"	"	
Toluene	ND	4.39	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND UJ	4.39	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.39	"	"	"	"	"	"	
Trichloroethene	ND UJ	4.39	"	"	"	"	"	"	
Trichlorofluoromethane	ND UJ	4.39	"	"	"	"	"	"	
Vinyl acetate	ND UJ	8.79	"	"	"	"	"	"	
Vinyl chloride	ND	4.39	"	"	"	"	"	"	
Total Xylenes	ND UJ	8.79	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.0 %*	*66.3-119*		"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

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SC 9/14/05

CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:29

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-01-7678 (B212111-03) Soil	**Sampled: 12/05/02 14:30**	**Received: 12/06/02 11:00**							**QC**
Acetone	ND UJ	19.0	ug/kg dry	1	2120162	12/09/02	12/09/02	5035/8260B	
Benzene	ND	3.80	"	"	"	"	"	"	
Bromodichloromethane	ND	3.80	"	"	"	"	"	"	
Bromoform	ND UJ	3.80	"	"	"	"	"	"	
Bromomethane	ND UJ	3.80	"	"	"	"	"	"	
2-Butanone	~~ND UJ~~ R	~~7.60~~	"	"	"	"	"	"	
Carbon disulfide	ND UJ	3.80	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.80	"	"	"	"	"	"	
Chlorobenzene	ND	3.80	"	"	"	"	"	"	
Chlorodibromomethane	ND UJ	3.80	"	"	"	"	"	"	
Chloroethane	ND	3.80	"	"	"	"	"	"	
Chloroform	ND	3.80	"	"	"	"	"	"	
Chloromethane	ND	3.80	"	"	"	"	"	"	
1,1-Dichloroethane	ND	3.80	"	"	"	"	"	"	
1,2-Dichloroethane	ND	3.80	"	"	"	"	"	"	
1,1-Dichloroethene	ND	3.80	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	3.80	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	3.80	"	"	"	"	"	"	
1,2-Dichloropropane	ND	3.80	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.28	"	"	"	"	"	"	
Ethylbenzene	ND	3.80	"	"	"	"	"	"	
2-Hexanone	ND UJ	7.60	"	"	"	"	"	"	
Methylene chloride	ND	3.80	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND UJ	7.60	"	"	"	"	"	"	
Styrene	ND	3.80	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND UJ	3.80	"	"	"	"	"	"	
Tetrachloroethene	ND	3.80	"	"	"	"	"	"	
Toluene	ND	3.80	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND UJ	3.80	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND UJ	3.80	"	"	"	"	"	"	
Trichloroethene	ND	3.80	"	"	"	"	"	"	
Trichlorofluoromethane	ND UJ	3.80	"	"	"	"	"	"	
Vinyl acetate	ND UJ	7.60	"	"	"	"	"	"	
Vinyl chloride	ND	3.80	"	"	"	"	"	"	
Total Xylenes	ND	7.60	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.1 %*	*66.3-119*		"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

MOR 08602

CDM
Data Validation Report

Project/Site Name:	Morey Phase II
Collection Date:	December 06, 2002
CDM Report Date:	September 19, 2005
Matrix:	Soil
Parameters:	Volatiles
Validation Level:	Level IV
Laboratory:	Great Lakes Analytical
Sample Delivery Group (SDG):	B212115

Sample Identification

Site ID	Lab ID
MP-SB-02-1416	B212115-01
MP-SB-02-6870	B212115-02
MP-SB-D	B212115-03
MP-SB-03-1820	B212115-04
MP-SB-03-3840	B212115-05
MP-SB-04-1820	B212115-06

Introduction

This data review covers 6 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

Data qualifiers were added as appropriate to a copy of the data reports. These modified data reports are provided at the end of this report.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

U Indicates the compound was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination ( ) were greater than or equal to 0.990.

For the purpose of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) and 0.05 relative response factor (RRF) National Functional Guideline criteria. All compounds were within the validation criteria with the following exceptions:

Date	Compound	%RSD	Associated Samples	Flag	RRF
11/5/02	Bromomethane	40.24	All	J (all detects)	
	Trichlorotrifluoromethane	37.78			
	Acetone	62.22			

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purpose of technical evaluation, all compounds were evaluated against the 25.0% (%D) and 0.05 RRF National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	RRF
12/09/02	Bromomethane	39.3	MP-SB-02-1416	J (all detects)	
	Trichlorotrifluoromethane	62.4	MP-SB-02-6870	UJ (all non-detects)	
	Acetone	64.5	MP-SB-D		
	Carbon disulfide	43.0	MP-SB-03-1820		
	1,1,1-trichloroethane	27.7	MP-SB-03-3840		
	Vinyl acetate	54.7	MP-SB-04-1820		
	2-Butanone	73.1		R (2-butanon non-detects)	0.014
	4-methyl-2-pentanone	74.4			
	1,1,2-trichloroethane	27.4			
	2-hexanone	76.6			
	Chlorodibromomethane	25.5			
	Bromoform	38.8			
	1,1,2,2-tetrachloroethane	44.9			

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
BLK 2120162	12/09/02	Methylene chloride	13	All

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
MP-SB-02-6870	Methylene chloride	4.89	4.89 U
MP-SB-04-1820	Methylene chloride	6.52	6.52 UJ

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (> 10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks with the following exceptions:

There were no field blanks associated with the samples contained in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Date	Compound	%R	Associated Samples	Flag
2120162 BS1	12/9/02	Chlorodibromomethane	74.4	All in SDG	J (all detects)
		1,1,2-trichloroethane	72.4		UJ (all non-detects)
		Trichlorofluoromethane	282		
2120162 BS2	12/9/02	Trichlorofluoromethane	346		

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas were below criteria in samples MP-SB-03-3840 and MP-SB-04-1820 all reported results in these samples are qualified "J" or "UJ".

Internal standard number 3 was below criteria in sample MP-SB-3-1820 all results quantitated off this standard are qualified "J" or "UJ" (bromodichloromethane, tetrachloroethene, 1,2-dibromoethane, chlorobenzene, ethylbenzene, xylenes, styrene, and bromoform).

The reanalysis of these samples confirmed internal standard areas observed in the initial analyses. The initial results were used for reporting.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples for all samples.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for all samples.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment of Data

Data flags have been applied to data reports and attached at the end of this report.

XVI. Field Duplicates

Results for sample MP-SB-02-1416 and its duplicate MP-SB-D were reviewed and found to be comparable.

XVII. Additional Findings

During review of the raw data the following items were noted:

1. Some target and surrogate areas were manually integrated but the integration details were not included in the report. The laboratory was contacted and supplied some clarification that included integration details.

2. The surrogate control limits reported on a form titles QA/QC Report did not match the limits given on the data report forms. The laboratory was contacted as to which control limits the data were evaluated against. The laboratory responded that the criteria listed on the data report forms were used for results analysis and the ones on the QA/QC report were generated for instrumentation review only.

The laboratory responses were satisfactory and are attached to report for SDG B212111. No action was required on the data.

Data Validation Checklist,
Worksheets
And
Supplemental Information

VALIDATION FINDINGS CHECKLIST

LDC#: Mary Phase II
SDG#: B212115

Reviewer: S. Kirchner

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	X			
Cooler temperature criteria was met.	X			
II. GC/MS instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	X			
Were all samples analyzed within the 12 hour clock criteria?	X			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	X			
Were all percent relative standard deviations (%RSD) and relative response factors (RFF) within method criteria for all CCCs and SPCCs?	X			
Was a curve fit used for evaluation? If yes, what was the acceptance criteria used?	X			$r^2 < 0.99$
Did the initial calibration meet the curve fit acceptance criteria?	X			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?		X		See work sheet
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	X			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	X			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		X		See work sheet
V. Blanks				
Was a method blank associated with every sample in this SDG?	X			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	X			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	X			See work sheet
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	X			
If the percent recovery (%R) for one of more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?				
VII. Matrix spike/matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in the SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		X		Soil No Site specific MS/MSD Analyzed.
Was a MS/MSD analyzed every 20 samples of each matrix?	X			According to Run log

VALIDATION FINDINGS CHECKLIST

LDC#: Merry Plus II
SDG#: B2J2115

Reviewer: S. Kirchner

Method: Volatiles (EPA SW 846 Method 8260B)

Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			X	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	X			
Was an LCS analyzed per analytical batch?	X			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	X			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		X		
Were the performance evaluation (PE) samples within the acceptance limits?			X	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?		X		See work Sheet
Were retention times within +/- 30 seconds of the associated calibration standard?	X			
XI. Target compound identification				
Were relative retention times (RRTs) within +/- 0.06 RRT units of the standard?	X			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	X			
Were chromatogram peaks verified and accounted for?	X			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	X			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	X			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	X			
Were relative intensities of the major ions within +/- 20% between the sample and the reference spectra?	X			
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	X			
XIV. System performance				
System performance was found to be acceptable.	X			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	X			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	X	~~X~~ SC	9/pairs	
Target compounds were detected in the field duplicates.	X		~~A~~ SC	Acetone & Methylene Chloride
XVII. Field blanks				
Field blanks were identified in this SDG.		X		
Target compounds were detected in the field blanks.			X	

Crosswalk - Worksheet ID vs. Compound Name

Worksheet ID 8260	Compound Name	CAS No.	System Performance
A	Dichlorodifluoromethane	75-71-8	SPCC (%RSD)
B	Chloromethane	74-87-3	
C	VinylChloride	75-01-4	CCC (RRF)
D	Bromomethane	74-83-9	
E	Chloroethane	75-00-3	
F	Trichlorofluoromethane	75-69-4	
G	1,1-Dichloroethene	75-35-4	CCC (RRF)
H	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	
I	Acetone	67-64-1	
J	CarbonDisulfide	75-15-0	
K	MethylAcetate	79-20-9	
L	MethyleneChloride	75-09-2	
M	trans-1,2-Dichloroethene	156-60-5	
N	tert-ButylMethylEther	1634-04-4	
O	1,1-Dichloroethane	75-34-3	SPCC (%RSD)
P	cis-1,2-Dichloroethene	156-59-2	
Q	2-Butanone	78-93-3	
R	Bromochloromethane	74-97-5	
S	Chloroform	67-66-3	CCC (RRF)
T	1,1,1-Trichloroethane	71-55-6	
U	Cyclohexane	110-82-7	
V	CarbonTetrachloride	56-23-5	
W	Benzene	71-43-2	
X	1,2-Dichloroethane	107-06-2	
Y	Trichloroethene	79-01-6	
Z	Methylcyclohexane	108-87-2	
AA	1,2-Dichloropropane	78-87-5	CCC (RRF)
BB ✓	Bromodichloromethane	75-27-4	
CC	cis-1,3-Dichloropropene	10061-01-5	
DD	4-Methyl-2-pentanone	108-10-1	
EE	Toluene	108-88-3	CCC (RRF)
FF	trans-1,3-Dichloropropene	10061-02-6	
GG	1,1,2-Trichloroethane	79-00-5	
HH ✓	Tetrachloroethene	127-18-4	
II	2-Hexanone	591-78-6	
JJ	Dibromochloromethane	124-48-1	
KK ✓	1,2-Dibromoethane	106-93-4	
LL ✓	Chlorobenzene	108-90-7	SPCC (%RSD)
MM ✓	Ethylbenzene	100-41-4	CCC (RRF)
NN ✓	Xylenes(total)	1330-20-7	
OO ✓	Styrene	100-42-5	
PP ✓	Bromoform	75-25-2	SPCC (%RSD)
QQ	Isopropylbenzene	98-82-8	
RR	1,1,2,2-Tetrachloroethane	79-34-5	SPCC (%RSD)
SS	1,3-Dichlorobenzene	541-73-1	
TT	1,4-Dichlorobenzene	106-46-7	
UU	1,2-Dichlorobenzene	95-50-1	
VV	1,2-Dibromo-3-chloropropane	96-12-8	
WW	1,2,4-Trichlorobenzene	120-82-1	
XX	1,2,4-Trichlorobenzene	87-61-6	
YY			
ZZ			
AAA			
BBB			
CCC			

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Morry Phase II SDG: B212115 (+B212111)

Instrument ID: GCMS-3 DATE ANALYZED: 12/9 BFB Tune OK? YES NO

Sample Number	Hold Time		Standards: (↑, ↓; ↓↓=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
Chk										
Chk										
BLK										
B212111-03										↓↓
-01							↓↓			↓
-02							↓	↓	↓	↓
B212110-01										
B212110-02										
B212113-01							↓	↓	↓	↓ NT
B212115-01										↓
02 MCL-U										
03										↓
04									↓	↓
05							↓	↓	↓	↓
06 MCL-U							↓	↓	↓	↓

MS/MSD OK? YES NO Comment:

LCS OK? YES NO Comment:

MOR 08614

IC Date: ~~11/4~~ 11/9 CC Date: 12-9 Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	"J", "UJ", "R" (Hit/Non-Detect)
Bromomethane		40.24		39.3	J/UJ
Trichlorofluoromethane		37.79		62.4	↓
Acetone		62.22		64.5	↓
Tetrahydrofuran		37.91		70.1	NT
Dichlorodifluoromethane				25.4	NT
Carbon Disulfide				47.0	J/UJ
1,1,1-TCA				27.7	↓
Vinyl Acetate				54.7	
2-Butanone			0.014	77.1	
4-Methyl-2-Pentanone				74.4	
1,1,2-Trichloroethane				27.4	
2-Hexanone				76.6	↓
1,3-Dichloropropane				32.0	NT
Chlorodibromomethane				25.5	J/UJ
Bromoform				39.9	↓
1,1,2,2 Tetrachloroethane				44.9	↓

METHOD BLANK: 13 MCL FIELD BLANK: TRIP BLANK:

NT = nontarget compound

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Moray Phase II SDG: B212115 (+B212111)

Instrument ID: GCMS-3 DATE ANALYZED: 12/10 BFB Tune OK? (YES) NO

Sample Number	Hold Time Aro	Hold Time All	Standards: (↑, ↓; ↓↓=<10%) Surrogates 1	2	3	4	Internals 1	2	3	4
Chk										
Chk										
Blk										
B212111-02 RE1										
B212115-04 RE1									↓	↓
-05 RE1							↓	↓	↓	↓
-06 RE1							↓	↓	↓	↓

} NT

Not used for reporting

No RE samples reported

MS/MSD OK? YES NO Comment:

LCS OK? YES NO Comment:

MOR 08615

IC Date: 11/5 CC Date: ______ Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	"J", "UJ", "R" (Hit/Non-Detect)
Bromomethane		40.24		39.5	J/UJ
Trichlorofluoromethane		37.79		88.1	↓
Acetone		62.22		63.8	↓
Tetrahydrofuran		37.91		63.5	↓
~~Chloroform~~ Chloroethane				39.5	J/UJ
Carbon disulfide				34.0	↓
1,1,1-Trichloroethane				41.5	↓
Vinyl Acetate				51.9	↓
2-Butanone			0.017	67.3	↓
Carbon tetrachloride				32.7	↓
Trichloroethane				37.8	↓
4-methyl-2-pentanone				68.7	↓
2-Hexanone				72.1	↓
Xylenes				30.9	↓
Bromoform				26.7	↓
1,1,2,2-Tetrachloroethane				32.4	↓

METHOD BLANK: 13 Med FIELD BLANK: ______ TRIP BLANK: ______

NT = non target compounds

DV-worksheet-Method 8260B using calibration criteria from CLP National Functional Guidelines for Organic Reveiw-1999

Qualified Data Reports

MOR 08616

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CDM
125 S. Wacker Dr. Suite 600
Chicago IL, 60606

Project: Morey Phase II
Project Number: Morey P2
Project Manager: Mark Peters

Reported:
12/11/02 15:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MP-SB-02-1416	B212115-01	Soil	12/06/02 09:15	12/06/02 17:20
MP-SB-02-6870	B212115-02	Soil	12/06/02 11:15	12/06/02 17:20
MP-SB-D	B212115-03	Soil	12/06/02 09:20	12/06/02 17:20
MP-SB-03-1820	B212115-04	Soil	12/06/02 14:30	12/06/02 17:20
MP-SB-03-3840	B212115-05	Soil	12/06/02 14:35	12/06/02 17:20
MP-SB-04-1820	B212115-06	Soil	12/06/02 16:00	12/06/02 17:20

MOR 08617

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Andy Johnson

Andy Johnson, Project Manager

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CDM
125 S. Wacker Dr. Suite 600
Chicago IL, 60606

Project: Morey Phase II
Project Number: Morey P2
Project Manager: Mark Peters

Reported:
12/11/02 15:41

General Chemistry

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-02-1416 (B212115-01) Soil Sampled: 12/06/02 09:15 Received: 12/06/02 17:20									
pH	**7.36**		pH Units	1	2120220	12/11/02	12/11/02	EPA 9045C	
MP-SB-02-6870 (B212115-02) Soil Sampled: 12/06/02 11:15 Received: 12/06/02 17:20									
pH	**7.83**		pH Units	1	2120220	12/11/02	12/11/02	EPA 9045C	
MP-SB-D (B212115-03) Soil Sampled: 12/06/02 09:20 Received: 12/06/02 17:20									
pH	**8.04**		pH Units	1	2120220	12/11/02	12/11/02	EPA 9045C	
MP-SB-04-1820 (B212115-06) Soil Sampled: 12/06/02 16:00 Received: 12/06/02 17:20									
pH	**8.03**		pH Units	1	2120220	12/11/02	12/11/02	EPA 9045C	

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Andy Johnson

Andy Johnson, Project Manager

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SK 9/19/03

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/11/02 15:41

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-02-1416 (B212115-01) Soil	**Sampled: 12/06/02 09:15 Received: 12/06/02 17:20**								**QC**
Acetone	**30.0** UJ SK 9/19/03	22.1	ug/kg dry	1	2120162	12/09/02	12/09/02	5035/8260B	A
Benzene	ND	4.42	"	"	"	"	"	"	
Bromodichloromethane	ND	4.42	"	"	"	"	"	"	
Bromoform	ND UJ	4.42	"	"	"	"	"	"	
Bromomethane	ND UJ	4.42	"	"	"	"	"	"	
2-Butanone	SK 9/19/03 R ~~ND UJ~~	~~8.84~~	"	"	"	"	"	"	
Carbon disulfide	ND UJ	4.42	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.42	"	"	"	"	"	"	
Chlorobenzene	ND	4.42	"	"	"	"	"	"	
Chlorodibromomethane	ND UJ	4.42	"	"	"	"	"	"	
Chloroethane	ND	4.42	"	"	"	"	"	"	
Chloroform	ND	4.42	"	"	"	"	"	"	
Chloromethane	ND	4.42	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.42	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.42	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.42	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.42	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.42	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.42	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.65	"	"	"	"	"	"	
Ethylbenzene	ND	4.42	"	"	"	"	"	"	
2-Hexanone	ND UJ	8.84	"	"	"	"	"	"	
Methylene chloride	ND	4.42	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND UJ	8.84	"	"	"	"	"	"	
Styrene	ND	4.42	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND UJ	4.42	"	"	"	"	"	"	
Tetrachloroethene	ND	4.42	"	"	"	"	"	"	
Toluene	ND	4.42	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND UJ	4.42	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND UJ	4.42	"	"	"	"	"	"	
Trichloroethene	ND	4.42	"	"	"	"	"	"	
Trichlorofluoromethane	ND UJ	4.42	"	"	"	"	"	"	
Vinyl acetate	ND UJ	8.84	"	"	"	"	"	"	
Vinyl chloride	ND	4.42	"	"	"	"	"	"	
Total Xylenes	ND	8.84	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*96.4 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.7 %*	*66.3-119*		"	"	"	"	

MOR 08619

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

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SL 9/19/05

CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/11/02 15:41

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-02-6870 (B212115-02) Soil	**Sampled: 12/06/02 11:15**	**Received: 12/06/02 17:20**							**QC**
Acetone	**27.2** J	21.7	ug/kg dry	1	2120162	12/09/02	12/09/02	5035/8260B	A
Benzene	ND	4.35	"	"	"	"	"	"	
Bromodichloromethane	ND	4.35	"	"	"	"	"	"	
Bromoform	ND UJ	4.35	"	"	"	"	"	"	
Bromomethane	ND UJ	4.35	"	"	"	"	"	"	
2-Butanone	9/15 R ~~ND UJ~~	~~8.69~~	"	"	"	"	"	"	
Carbon disulfide	ND UJ	4.35	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.35	"	"	"	"	"	"	
Chlorobenzene	ND	4.35	"	"	"	"	"	"	
Chlorodibromomethane	ND UJ	4.35	"	"	"	"	"	"	
Chloroethane	ND	4.35	"	"	"	"	"	"	
Chloroform	ND	4.35	"	"	"	"	"	"	
Chloromethane	ND	4.35	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.35	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.35	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.35	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.35	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.35	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.35	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.61	"	"	"	"	"	"	
Ethylbenzene	ND	4.35	"	"	"	"	"	"	
2-Hexanone	ND UJ	8.69	"	"	"	"	"	"	
Methylene chloride	**4.89** U	4.35	"	"	"	"	"	"	B,A
4-Methyl-2-pentanone	ND UJ	8.69	"	"	"	"	"	"	
Styrene	ND	4.35	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND UJ	4.35	"	"	"	"	"	"	
Tetrachloroethene	ND	4.35	"	"	"	"	"	"	
Toluene	ND	4.35	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND UJ	4.35	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND UJ	4.35	"	"	"	"	"	"	
Trichloroethene	ND	4.35	"	"	"	"	"	"	
Trichlorofluoromethane	ND UJ	4.35	"	"	"	"	"	"	
Vinyl acetate	ND UJ	8.69	"	"	"	"	"	"	
Vinyl chloride	ND	4.35	"	"	"	"	"	"	
Total Xylenes	ND	8.69	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.6 %*	*66.3-119*		"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

MOR 08620

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/11/02 15:41

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-D (B212115-03) Soil Sampled: 12/06/02 09:20 Received: 12/06/02 17:20									QC
Acetone	29.3 J	25.7	ug/kg dry	1	2120162	12/09/02	12/09/02	5035/8260B	A
Benzene	ND	5.13	"	"	"	"	"	"	
Bromodichloromethane	ND	5.13	"	"	"	"	"	"	
Bromoform	ND UJ	5.13	"	"	"	"	"	"	
Bromomethane	ND UJ	5.13	"	"	"	"	"	"	
2-Butanone	ND ~~UJ~~ R	~~10.3~~	"	"	"	"	"	"	
Carbon disulfide	ND UJ	5.13	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.13	"	"	"	"	"	"	
Chlorobenzene	ND	5.13	"	"	"	"	"	"	
Chlorodibromomethane	ND UJ	5.13	"	"	"	"	"	"	
Chloroethane	ND	5.13	"	"	"	"	"	"	
Chloroform	ND	5.13	"	"	"	"	"	"	
Chloromethane	ND	5.13	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.13	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.13	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.13	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.13	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.13	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.13	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	3.08	"	"	"	"	"	"	
Ethylbenzene	ND	5.13	"	"	"	"	"	"	
2-Hexanone	ND UJ	10.3	"	"	"	"	"	"	
Methylene chloride	ND	5.13	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND UJ	10.3	"	"	"	"	"	"	
Styrene	ND	5.13	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND UJ	5.13	"	"	"	"	"	"	
Tetrachloroethene	ND	5.13	"	"	"	"	"	"	
Toluene	ND	5.13	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND UJ	5.13	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND UJ	5.13	"	"	"	"	"	"	
Trichloroethene	ND	5.13	"	"	"	"	"	"	
Trichlorofluoromethane	ND UJ	5.13	"	"	"	"	"	"	
Vinyl acetate	ND UJ	10.3	"	"	"	"	"	"	
Vinyl chloride	ND	5.13	"	"	"	"	"	"	
Total Xylenes	ND	10.3	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.9 %*	*66.3-119*		"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

MOR 08621

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/11/02 15:41

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-03-1820 (B212115-04) Soil	**Sampled: 12/06/02 14:30 Received: 12/06/02 17:20**								**QC,O2**
Acetone	**38.4 J**	19.6	µg/kg dry	1	2120162	12/09/02	12/09/02	5035/8260B	A
Benzene	ND	3.92	"	"	"	"	"	"	
Bromodichloromethane	ND	3.92	"	"	"	"	"	"	
Bromoform	ND UJ	3.92	"	"	"	"	"	"	
Bromomethane	ND UJ	3.92	"	"	"	"	"	"	
2-Butanone	~~ND UJ~~ R	~~7.85~~	"	"	"	"	"	"	
Carbon disulfide	ND UJ	3.92	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.92	"	"	"	"	"	"	
Chlorobenzene	ND UJ	3.92	"	"	"	"	"	"	
Chlorodibromomethane	ND UJ	3.92	"	"	"	"	"	"	
Chloroethane	ND	3.92	"	"	"	"	"	"	
Chloroform	ND	3.92	"	"	"	"	"	"	
Chloromethane	ND	3.92	"	"	"	"	"	"	
1,1-Dichloroethane	ND	3.92	"	"	"	"	"	"	
1,2-Dichloroethane	ND	3.92	"	"	"	"	"	"	
1,1-Dichloroethene	ND	3.92	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	3.92	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	3.92	"	"	"	"	"	"	
1,2-Dichloropropane	ND	3.92	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.35	"	"	"	"	"	"	
Ethylbenzene	ND UJ	3.92	"	"	"	"	"	"	
2-Hexanone	ND UJ	7.85	"	"	"	"	"	"	
Methylene chloride	ND	3.92	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND UJ	7.85	"	"	"	"	"	"	
Styrene	ND UJ	3.92	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND UJ	3.92	"	"	"	"	"	"	
Tetrachloroethene	ND UJ	3.92	"	"	"	"	"	"	
Toluene	ND	3.92	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND UJ	3.92	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND UJ	3.92	"	"	"	"	"	"	
Trichloroethene	ND	3.92	"	"	"	"	"	"	
Trichlorofluoromethane	ND UJ	3.92	"	"	"	"	"	"	
Vinyl acetate	ND UJ	7.85	"	"	"	"	"	"	
Vinyl chloride	ND	3.92	"	"	"	"	"	"	
Total Xylenes	ND UJ	7.85	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*111 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*95.9 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*79.8 %*	*66.3-119*		"	"	"	"	

Great Lakes Analytical--Buffalo Grove

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Andy Johnson

Andy Johnson, Project Manager

MOR 08622

GREAT LAKES ANALYTICAL
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COPY

CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/11/02 15:41

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-03-3840 (B212115-05) Soil	**Sampled: 12/06/02 14:35 Received: 12/06/02 17:20**								**QC,O2**
Acetone	45.6 J	22.6	ug/kg dry	1	2120162	12/09/02	12/09/02	5035/8260B	A
Benzene	ND UJ	4.52	"	"	"	"	"	"	
Bromodichloromethane	ND	4.52	"	"	"	"	"	"	
Bromoform	ND	4.52	"	"	"	"	"	"	
Bromomethane	ND	4.52	"	"	"	"	"	"	
2-Butanone	~~ND~~ R	~~9.04~~	"	"	"	"	"	"	
Carbon disulfide	ND	4.52	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.52	"	"	"	"	"	"	
Chlorobenzene	ND	4.52	"	"	"	"	"	"	
Chlorodibromomethane	ND	4.52	"	"	"	"	"	"	
Chloroethane	ND	4.52	"	"	"	"	"	"	
Chloroform	ND	4.52	"	"	"	"	"	"	
Chloromethane	ND	4.52	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.52	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.52	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.52	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.52	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.52	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.52	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.71	"	"	"	"	"	"	
Ethylbenzene	ND	4.52	"	"	"	"	"	"	
2-Hexanone	ND	9.04	"	"	"	"	"	"	
Methylene chloride	ND	4.52	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	9.04	"	"	"	"	"	"	
Styrene	ND	4.52	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.52	"	"	"	"	"	"	
Tetrachloroethene	ND	4.52	"	"	"	"	"	"	
Toluene	ND	4.52	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.52	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.52	"	"	"	"	"	"	
Trichloroethene	ND	4.52	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.52	"	"	"	"	"	"	
Vinyl acetate	ND	9.04	"	"	"	"	"	"	
Vinyl chloride	ND	4.52	"	"	"	"	"	"	
Total Xylenes	ND	9.04	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*89.6 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.0 %*	*66.3-119*		"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

MOR 08623

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9/19/05

CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	**Reported:**
Chicago IL, 60606	Project Manager: Mark Peters	12/11/02 15:41

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-04-1820 (B212115-06) Soil	**Sampled: 12/06/02 16:00 Received: 12/06/02 17:20**								**QC,O2**
Acetone	**48.5 J**	23.9	ug/kg dry	1	2120162	12/09/02	12/09/02	5035/8260B	A
Benzene	ND UJ	4.77	"	"	"	"	"	"	
Bromodichloromethane	ND	4.77	"	"	"	"	"	"	
Bromoform	ND	4.77	"	"	"	"	"	"	
Bromomethane	ND	4.77	"	"	"	"	"	"	
2-Butanone	~~ND~~ R	~~9.54~~	"	"	"	"	"	"	
Carbon disulfide	ND	4.77	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.77	"	"	"	"	"	"	
Chlorobenzene	ND	4.77	"	"	"	"	"	"	
Chlorodibromomethane	ND	4.77	"	"	"	"	"	"	
Chloroethane	ND	4.77	"	"	"	"	"	"	
Chloroform	ND	4.77	"	"	"	"	"	"	
Chloromethane	ND	4.77	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.77	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.77	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.77	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.77	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.77	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.77	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.86	"	"	"	"	"	"	
Ethylbenzene	ND	4.77	"	"	"	"	"	"	
2-Hexanone	ND	9.54	"	"	"	"	"	"	
Methylene chloride	**6.52 UJ**	4.77	"	"	"	"	"	"	A,B
4-Methyl-2-pentanone	ND	9.54	"	"	"	"	"	"	
Styrene	ND	4.77	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.77	"	"	"	"	"	"	
Tetrachloroethene	ND	4.77	"	"	"	"	"	"	
Toluene	ND	4.77	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.77	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.77	"	"	"	"	"	"	
Trichloroethene	ND	4.77	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.77	"	"	"	"	"	"	
Vinyl acetate	ND	9.54	"	"	"	"	"	"	
Vinyl chloride	ND	4.77	"	"	"	"	"	"	
Total Xylenes	ND	9.54	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*116 %*	*73.8-142*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*	*61.8-168*		"	"	"	"	
Surrogate: Toluene-d8		*88.5 %*	*70.1-131*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*76.5 %*	*66.3-119*		"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

MOR 08624

CDM
Data Validation Report

Project/Site Name:	Morey Phase II
Collection Date:	December 09, 2002
CDM Report Date:	September 19, 2005
Matrix:	Soil
Parameters:	Volatiles
Validation Level:	Level IV
Laboratory:	Great Lakes Analytical
Sample Delivery Group (SDG):	B212131

Sample Identification

Site ID	Lab ID
MP-SB-04-3840	B212131-01
MP-SB-05-0507	B212131-02
MP-SB-05-3537	B212131-03
MP-SB-05-3840	B212131-04
MP-SB-06-1820	B212131-05
MP-SB-06-3840	B212131-06

Introduction

This data review covers 6 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

Data qualifiers were added as appropriate to a copy of the data reports. These modified data reports are provided at the end of this report.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

U Indicates the compound was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990.

For the purpose of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) and 0.05 relative response factor (RRF) National Functional Guideline criteria. All compounds were within the validation criteria with the following exceptions:

Date	Compound	%RSD	Associated Samples	Flag	RRF
11/5/02 GCMS-3	Bromomethane Trichlorotrifluoromethane Acetone	40.24 37.78 62.22	Initial analysis of all samples	J (all detects)	
12/6/02 GCMS-1	Acetone Methylene chloride Carbon tetrachloride 2-Hexanone	67.3 35.3 46.99 40.19	Reanalysis of MP-SB-04-3840 MP-SB-05-3537 MP-SB-05-3840 MP-SB-06-1820 MP-SB-06-3840	J (all detects)	
11/8/02 GCMS-4	Bromomethane Acetone Methylene chloride 2-Butanone Bromoform 1,1,2,2-Tetrachloroethane	32.4 110 118 53.0 38.7 35.4	Dilution of MP-SB-05-0507 for Tetrachloroethene	Not applicable	

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purpose of technical evaluation, all compounds were evaluated against the 25.0% (%D) and 0.05 RRF National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	RRF
12/10/02 GCMS-3	Bromomethane	37.6	MP-SB-04-3840	J (all detects)	
	Trichlorotrifluoromethane	82.9	MP-SB-05-0507	UJ (all non-detects)	
	Acetone	68.9	MP-SB-05-3537		
	Carbon disulfide	40.3	MP-SB-05-3840		
	1,1,1-Trichloroethane	26.5	MP-SB-06-1820		
	Vinyl acetate	56.3	MP-SB-06-3840		
	2-Butanone	73.1			
	4-methyl-2-pentanone	74.9			
	1,1,2-Trichloroethane	32.0			
	2-Hexanone	77.7			
	Chlorodibromomethane	32.5			
	Bromoform	40.8			
	1,1,2,2-tetrachloroethane	45.9			
12/11/02 GCMS-1	Acetone	63.4	MP-SB-04-3840-RE1		
	Carbon disulfide	31.1	MP-SB-05-3537-RE1		
	1,1-Dichloroethane	33.4	MP-SB-05-3840-RE1		
	Vinyl acetate	32.0	MP-SB-06-1820-RE1		
	2-Butanone	43.6	MP-SB-06-3840-RE1		
	4-Methyl-2-pentanone	53.9			
	2-Hexanone	55.1			
12/11/02 GCMS-4	Bromomethane	40.5	MP-SB-05-0507-DL	Not applicable	
	Acetone	71.4	Diluted for		
	Methylene chloride	54.2	Tetrachloroethene		
	2-Butanone	61.4			
	Dichlorodifluoromethane	46.5			
	Vinyl chloride	28.2			
	Carbon disulfide	47.0			
	Vinyl acetate	40.9			
	4-Methyl-2-petanone	51.7			
	2-Hexanone	53.8			

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
2120209-blk1	12/10/02	Methylene chloride	11.01	All

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
No sample			
results affected			

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (> 10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks with the following exceptions:

There were no field blanks associated with the samples contained in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries for reanalyses of samples MP-SB-04-3840, MP-SB-05-3537 and MP-SB-06-1820 (used for reporting) had low recoveries. All results in these samples are qualified as estimated "J" or "UJ".

VII. Matrix Spike/Matrix Spike Duplicates

No matrix spike analysis was associated with the samples reported in this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Date	Compound	%R	Associated Samples	Flag
2120209 BS1	12/10/02	Dibromochloromethane	78.6	All in SDG	J (all detects)
		Trichlorofluoromethane	262		UJ (all non-detects)
2120209 BSD1		Dibromochloromethane	72.8		
		Trichlorofluoromethane	332		
		Bromoform	59.2		
		1,2-Dichloroethane	80.4		
		1,1,2,2-Terachloroethane	54.0		
		1,1,2-Trichloroethane	67.8		

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas were below criteria in sample MP-SB-05-3840 all reported results in this sample are qualified "J" or "UJ". The reanalysis of this sample confirmed internal standard areas observed in the initial analyses. The initial results were used for reporting.

The initial analysis of samples MP-SB-04-3840, MP-SB-05-3537, MP-SB-06-1820 and MP-SB-06-3840 had low internal standard recoveries. The reanalysis of these samples had improved internal standard recoveries. Therefore the reanalyses were used for reporting.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples for all samples.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for all samples.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment of Data

Data flags have been applied to data reports and attached at the end of this report.

XVI. Field Duplicates

No field duplicated was associated with this SDG.

XVII. Additional Findings

During review of the raw data the following item was noted:

1. Some target and surrogate areas were manually integrated but the integration details were not included in the report. The laboratory was contacted and supplied some clarification that included integration details.

The laboratory response was satisfactory and is attached to report for SDG B212111. No action was required on the data.

Data Validation Checklist,
Worksheets
And
Supplemental Information

LDC#: Merry Plan II
SDG#: B212131

VALIDATION FINDINGS CHECKLIST

Reviewer: S. Kirchner

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	X			
Cooler temperature criteria was met.	X			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	X			
Were all samples analyzed within the 12 hour clock criteria?	X			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	X			
Were all percent relative standard deviations (%RSD) and relative response factors (RFF) within method criteria for all CCCs and SPCCs?	X			
Was a curve fit used for evaluation? If yes, what was the acceptance criteria used?	X			$r^2 < 0.99$
Did the initial calibration meet the curve fit acceptance criteria?	X			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?		X		See worksheet
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	X			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	X			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		X		See worksheet
V. Blanks				
Was a method blank associated with every sample in this SDG?	X			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	X			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	X			See worksheet
VI. Surrogate spikes				
Were all surrogate %R within QC limits?		X		
If the percent recovery (%R) for one of more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	X			Surrogates were out in reanalysis - See worksheet
VII. Matrix spike/matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in the SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		X		Soil No Site Specific MS/MSD analyzed
Was a MS/MSD analyzed every 20 samples of each matrix?	X			According to Run log

LDC#: Marcy Phase II
SDG#: B212131

VALIDATION FINDINGS CHECKLIST

Reviewer: S. Richter

Method: Volatiles (EPA SW 846 Method 8260B)

Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			X	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	X			
Was an LCS analyzed per analytical batch?	X			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		X		See Work Sheet
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		X		
Were the performance evaluation (PE) samples within the acceptance limits?			X	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?		X		See Work Sheet
Were retention times within +/- 30 seconds of the associated calibration standard?	X			
XI. Target compound identification				
Were relative retention times (RRTs) within +/- 0.06 RRT units of the standard?	X			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	X			
Were chromatogram peaks verified and accounted for?	X			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	X			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	X			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	X			
Were relative intensities of the major ions within +/- 20% between the sample and the reference spectra?	X			
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	X			
XIV. System performance				
System performance was found to be acceptable.	X			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	X			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	~~X~~	X		
Target compounds were detected in the field duplicates.			X	
XVII. Field blanks				
Field blanks were identified in this SDG.		X		
Target compounds were detected in the field blanks.			X	

Crosswalk - Worksheet ID vs. Compound Name

Worksheet ID	Compound Name	CAS No.	System Performance
A	Dichlorodifluoromethane	75-71-8	SPCC (%RSD)
B	Chloromethane	74-87-3	
C	VinylChloride	75-01-4	CCC (RRF)
D	Bromomethane	74-83-9	
E	Chloroethane	75-00-3	
F	Trichlorofluoromethane	75-69-4	
G	1,1-Dichloroethene	75-35-4	CCC (RRF)
H	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	
I	Acetone	67-64-1	
J	CarbonDisulfide	75-15-0	
K	MethylAcetate	79-20-9	
L	MethyleneChloride	75-09-2	
M	trans-1,2-Dichloroethene	156-60-5	
N	tert-ButylMethylEther	1634-04-4	
O	1,1-Dichloroethane	75-34-3	SPCC (%RSD)
P	cis-1,2-Dichloroethene	156-59-2	
Q	2-Butanone	78-93-3	
R	Bromochloromethane	74-97-5	
S	Chloroform	67-66-3	CCC (RRF)
T	1,1,1-Trichloroethane	71-55-6	
U	Cyclohexane	110-82-7	
V	CarbonTetrachloride	56-23-5	
W	Benzene	71-43-2	
X	1,2-Dichloroethane	107-06-2	
Y	Trichloroethene	79-01-6	
Z	Methylcyclohexane	108-87-2	
AA	1,2-Dichloropropane	78-87-5	CCC (RRF)
BB ✓	Bromodichloromethane	75-27-4	
CC	cis-1,3-Dichloropropene	10061-01-5	
DD	4-Methyl-2-pentanone	108-10-1	
EE	Toluene	108-88-3	CCC (RRF)
FF	trans-1,3-Dichloropropene	10061-02-6	
GG	1,1,2-Trichloroethane	79-00-5	
HH ✓	Tetrachloroethene	127-18-4	
II	2-Hexanone	591-78-6	
JJ	Dibromochloromethane	124-48-1	
KK ✓	1,2-Dibromoethane	106-93-4	
LL ✓	Chlorobenzene	108-90-7	SPCC (%RSD)
MM ✓	Ethylbenzene	100-41-4	CCC (RRF)
NN ✓	Xylenes(total)	1330-20-7	
OO ✓	Styrene	100-42-5	
PP ✓	Bromoform	75-25-2	SPCC (%RSD)
QQ	Isopropylbenzene	98-82-8	
RR	1,1,2,2-Tetrachloroethane	79-34-5	SPCC (%RSD)
SS	1,3-Dichlorobenzene	541-73-1	
TT	1,4-Dichlorobenzene	106-46-7	
UU	1,2-Dichlorobenzene	95-50-1	
VV	1,2-Dibromo-3-chloropropane	96-12-8	
WW	1,2,4-Trichlorobenzene	120-82-1	
XX	1,2,4-Trichlorobenzene	87-61-6	
YY			
ZZ			
AAA			
BBB			
CCC			

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Morey Phase II SDG: B212131

Instrument ID: GCMS-3 DATE ANALYZED: 12/10 BFB Tune OK? (YES) NO

Sample Number	Hold Time		Standards: (↑, ↓; ↓↓=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
2120209-blk1										
2120209-BS1										
2120209-BSD1										
B212131-01							↓	↓	↓	↓↓-NT
-02										
-03							↓		↓	
-04							↓	↓	↓	↓↓-NT
-05							↓		↓	
-06							↓			

MS/MSD OK? YES NO Comment: NA

LCS OK? YES (NO) Comment: BS1 JJ-78.6%↓; F-262%↑; BSD-1 PP-5-9.2%↓; JJ-72.8%↓ X-80.4%↓; RR-54%↓; GG-67.8%↓

IC Date: 11/5/02 CC Date: 12/10 F-332%↑

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	Resulting Action "J", "UJ", "R" (Hit/Non-Detect)
Bromomethane		40.24		37.6	J/UJ
Trichlorofluoromethane		37.78		82.9	↓
Acetone		62.22		68.9	↓
Tetrahydrofuran		37.91			NT
Acrolein				97.9	NT
Carbon Disulfide				40.3	J/UJ
1,1,1-Trichloroethane				26.5	↓
Vinyl acetate				56.3	
2-Butanone				73.1	↓
Dibromomethane				30.4	NT
4-Methyl-2-pentanone				74.9	J/UJ
1,1,2-Trichloroethane				32.0	↓
2-Hexanone				77.7	NT ↓
1,3-Dichloropropane				32.5	J/UJ
Chlorodibromomethane				27.1	↓
Bromoform				40.8	
1,1,2,2-Tetrachloroethane				45.9	↓

METHOD BLANK: ~~Acetone 5.77~~ MeCl 11.01 FIELD BLANK: TRIP BLANK:

NT = non-target compounds

DV-worksheet-Method 8260B using calibration criteria from CLP National Functional Guidelines for Organic Reveiw-1999

MOR 08636

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Morey Phase II SDG: B212131

Instrument ID: GCMS-1 DATE ANALYZED: 12/11/02 BFB Tune OK? (YES) NO

Sample Number	Hold Time		Standards: (↑, ↓; ↓↓=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
2120224-bsd1 (clk std)									↑	
B212131-01 RE1			↓	↓						
-03 RE1			↓	↓						
-04 RE1							↓			
-05 RE1			↓	↓						
-06 RE1										

MS/MSD OK? YES NO Comment:

LCS OK? YES NO Comment:

IC Date: 12/6/05 CC Date: 12/11/02 Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	"J", "UJ", "R" (Hit/Non-Detect)
Acetone		67.3		63.4	J/↓
MeCl		35.3			J/-
Carbon Tetrachloride		46.99			↓
2-Hexanone		40.19			↓
Carbon Disulfide				31.1	J/↓
1,1-Dichloroethane				33.4	↓
Vinyl acetate				32.0	↓
2-Butanone				43.6	↓
4-Me-2-Pentanone				53.9	↓
2-Hexanone				55.1	↓

METHOD BLANK: All < RL FIELD BLANK: _____ TRIP BLANK: _____

_____ _____ _____

_____ _____ _____

DV-worksheet-Method 8260B using calibration criteria from CLP National Functional Guidelines for Organic Reveiw-1999

MOR 08637

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Morey Phase II SDG: B212131

Instrument ID: GCMS-4 DATE ANALYZED: 12/11 BFB Tune OK? (YES) NO

Sample Number	Hold Time		Standards: (↑, ↓; ↓↓=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
2120215-61IC-1										
2120215-65-1 (≃ chksta)										
B212131-02 Dilution										

MS/MSD OK? YES NO Comment:

LCS OK? YES NO Comment:

IC Date: 11/8/02 CC Date: 12/11 Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	"J", "UJ", "R" (Hit/Non-Detect)
Bromomethane		32.35		40.5	
Acetone		110		71.4	
MeCl		118		54.2	
2-Butanone		53.0		61.4	
Bromoform		38.69			
1,1,2,2-Tetrachloroethane		35.35			
Dichlorodifluoromethane				46.5	
Vinyl chloride				28.2	
Carbon Disulfide				47.0	
Vinyl acetate				40.4	
4-methyl-2-pentanone				51.7	
2-Hexanone				53.8	

METHOD BLANK: All < RL (Acetone 3.77) FIELD BLANK: TRIP BLANK:

DV-worksheet-Method 8260B using calibration criteria from CLP National Functional Guidelines for Organic Reveiw-1999

MOR 08638

Qualified Data Reports

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	Reported:
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MP-SB-04-3840	B212131-01	Soil	12/09/02 08:25	12/09/02 16:00
MP-SB-05-0507	B212131-02	Soil	12/09/02 11:20	12/09/02 16:00
MP-SB-05-3537	B212131-03	Soil	12/09/02 11:30	12/09/02 16:00
MP-SB-05-3840	B212131-04	Soil	12/09/02 11:35	12/09/02 16:00
MP-SB-06-1820	B212131-05	Soil	12/09/02 13:05	12/09/02 16:00
MP-SB-06-3840	B212131-06	Soil	12/09/02 13:10	12/09/02 16:00

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Andy Johnson

Andy Johnson, Project Manager

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	Reported:
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:02

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-04-3840 (B212131-01RE1) Soil	**Sampled: 12/09/02 08:25**		**Received: 12/09/02 16:00**						**QC**
Acetone	ND UJ	24.7	ug/kg dry	1	2120209	12/10/02	12/11/02	5035/8260B	
Benzene	ND	4.95	"	"	"	"	"	"	
Bromodichloromethane	ND	4.95	"	"	"	"	"	"	
Bromoform	ND	4.95	"	"	"	"	"	"	
Bromomethane	ND	4.95	"	"	"	"	"	"	
2-Butanone	ND	9.89	"	"	"	"	"	"	
Carbon disulfide	ND	4.95	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.95	"	"	"	"	"	"	
Chlorobenzene	ND	4.95	"	"	"	"	"	"	
Chlorodibromomethane	ND	4.95	"	"	"	"	"	"	
Chloroethane	ND	4.95	"	"	"	"	"	"	
Chloroform	ND	4.95	"	"	"	"	"	"	
Chloromethane	ND	4.95	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.95	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.95	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.95	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.95	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.95	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.95	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.97	"	"	"	"	"	"	
Ethylbenzene	ND	4.95	"	"	"	"	"	"	
2-Hexanone	ND	9.89	"	"	"	"	"	"	
Methylene chloride	ND	4.95	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	9.89	"	"	"	"	"	"	
Styrene	ND	4.95	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.95	"	"	"	"	"	"	
Tetrachloroethene	ND	4.95	"	"	"	"	"	"	
Toluene	ND	4.95	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.95	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.95	"	"	"	"	"	"	
Trichloroethene	ND	4.95	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.95	"	"	"	"	"	"	
Vinyl acetate	ND	9.89	"	"	"	"	"	"	
Vinyl chloride	ND	4.95	"	"	"	"	"	"	
Total Xylenes	ND	9.89	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*49.1 %*	*73.8-142*	"	"	"	"	L	O4
Surrogate: 1,2-Dichloroethane-d4		*19.2 %*	*61.8-168*	"	"	"	"	L	O4
Surrogate: Toluene-d8		*106 %*	*70.1-131*	"	"	"	"		
Surrogate: 4-Bromofluorobenzene		*71.1 %*	*66.3-119*	"	"	"	"		

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	Reported:
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:02

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-05-0507 (B212131-02) Soil Sampled: 12/09/02 11:20 Received: 12/09/02 16:00									QC
Acetone	ND UJ	26.5	ug/kg dry	1	2120209	12/10/02	12/10/02	5035/8260B	
Benzene	ND	5.30	"	"	"	"	"	"	
Bromodichloromethane	ND	5.30	"	"	"	"	"	"	
Bromoform	ND UJ	5.30	"	"	"	"	"	"	
Bromomethane	ND UJ	5.30	"	"	"	"	"	"	
2-Butanone	ND UJ	10.6	"	"	"	"	"	"	
Carbon disulfide	ND UJ	5.30	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.30	"	"	"	"	"	"	
Chlorobenzene	ND	5.30	"	"	"	"	"	"	
Chlorodibromomethane	ND UJ	5.30	"	"	"	"	"	"	
Chloroethane	ND	5.30	"	"	"	"	"	"	
Chloroform	ND	5.30	"	"	"	"	"	"	
Chloromethane	ND	5.30	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.30	"	"	"	"	"	"	
1,2-Dichloroethane	ND UJ	5.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.30	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.30	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.30	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	3.18	"	"	"	"	"	"	
Ethylbenzene	ND	5.30	"	"	"	"	"	"	
2-Hexanone	ND UJ	10.6	"	"	"	"	"	"	
Methylene chloride	ND	5.30	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND UJ	10.6	"	"	"	"	"	"	
Styrene	ND	5.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND UJ	5.30	"	"	"	"	"	"	
Tetrachloroethene	**10300**	265	"	50	"	"	12/11/02	"	
Toluene	ND	53.0	"	1	"	"	12/10/02	"	
1,1,1-Trichloroethane	ND UJ	5.30	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND UJ	5.30	"	"	"	"	"	"	
Trichloroethene	ND	5.30	"	"	"	"	"	"	
Trichlorofluoromethane	ND UJ	5.30	"	"	"	"	"	"	
Vinyl acetate	ND UJ	10.6	"	"	"	"	"	"	
Vinyl chloride	ND	5.30	"	"	"	"	"	"	
Total Xylenes	ND	10.6	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*101 %*	*73.8-142*	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*61.8-168*	"	"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*70.1-131*	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*66.3-119*	"	"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson

Andy Johnson, Project Manager

MOR 08642

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	Reported:
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:02

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-05-3537 (B212131-03RE1) Soil	**Sampled: 12/09/02 11:30**		**Received: 12/09/02 16:00**						QC
Acetone	ND	29.3	ug/kg dry	1	2120209	12/10/02	12/11/02	5035/8260B	
Benzene	ND	5.87	"	"	"	"	"	"	
Bromodichloromethane	ND	5.87	"	"	"	"	"	"	
Bromoform	ND	5.87	"	"	"	"	"	"	
Bromomethane	ND	5.87	"	"	"	"	"	"	
2-Butanone	ND	11.7	"	"	"	"	"	"	
Carbon disulfide	ND	5.87	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.87	"	"	"	"	"	"	
Chlorobenzene	ND	5.87	"	"	"	"	"	"	
Chlorodibromomethane	ND	5.87	"	"	"	"	"	"	
Chloroethane	ND	5.87	"	"	"	"	"	"	
Chloroform	ND	5.87	"	"	"	"	"	"	
Chloromethane	ND	5.87	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.87	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.87	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.87	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.87	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.87	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.87	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	3.52	"	"	"	"	"	"	
Ethylbenzene	ND	5.87	"	"	"	"	"	"	
2-Hexanone	ND	11.7	"	"	"	"	"	"	
Methylene chloride	ND	5.87	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	11.7	"	"	"	"	"	"	
Styrene	ND	5.87	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.87	"	"	"	"	"	"	
Tetrachloroethene	ND	5.87	"	"	"	"	"	"	
Toluene	ND	5.87	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.87	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.87	"	"	"	"	"	"	
Trichloroethene	ND	5.87	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.87	"	"	"	"	"	"	
Vinyl acetate	ND	11.7	"	"	"	"	"	"	
Vinyl chloride	ND	5.87	"	"	"	"	"	"	
Total Xylenes	ND	11.7	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*64.8 %*	*73.8-142*	"	"	"	"		L O4
Surrogate: 1,2-Dichloroethane-d4		*23.0 %*	*61.8-168*	"	"	"	"		L O4
Surrogate: Toluene-d8		*128 %*	*70.1-131*	"	"	"	"		
Surrogate: 4-Bromofluorobenzene		*103 %*	*66.3-119*	"	"	"	"		

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Andy Johnson, Project Manager

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	Reported:
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:02

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-05-3840 (B212131-04) Soil Sampled: 12/09/02 11:35 Received: 12/09/02 16:00									O2,QC
Acetone	ND	19.3	ug/kg dry	1	2120209	12/10/02	12/10/02	5035/8260B	
Benzene	ND	3.86	"	"	"	"	"	"	
Bromodichloromethane	ND	3.86	"	"	"	"	"	"	
Bromoform	ND	3.86	"	"	"	"	"	"	
Bromomethane	ND	3.86	"	"	"	"	"	"	
2-Butanone	ND	7.72	"	"	"	"	"	"	
Carbon disulfide	ND	3.86	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.86	"	"	"	"	"	"	
Chlorobenzene	ND	3.86	"	"	"	"	"	"	
Chlorodibromomethane	ND	3.86	"	"	"	"	"	"	
Chloroethane	ND	3.86	"	"	"	"	"	"	
Chloroform	ND	3.86	"	"	"	"	"	"	
Chloromethane	ND	3.86	"	"	"	"	"	"	
1,1-Dichloroethane	ND	3.86	"	"	"	"	"	"	
1,2-Dichloroethane	ND	3.86	"	"	"	"	"	"	
1,1-Dichloroethene	ND	3.86	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	3.86	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	3.86	"	"	"	"	"	"	
1,2-Dichloropropane	ND	3.86	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.32	"	"	"	"	"	"	
Ethylbenzene	ND	3.86	"	"	"	"	"	"	
2-Hexanone	ND	7.72	"	"	"	"	"	"	
Methylene chloride	ND	3.86	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	7.72	"	"	"	"	"	"	
Styrene	ND	3.86	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	3.86	"	"	"	"	"	"	
Tetrachloroethene	ND	3.86	"	"	"	"	"	"	
Toluene	ND	3.86	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	3.86	"	"	"	"	12/11/02	"	
1,1,2-Trichloroethane	ND	3.86	"	"	"	"	12/10/02	"	
Trichloroethene	ND	3.86	"	"	"	"	"	"	
Trichlorofluoromethane	ND	3.86	"	"	"	"	"	"	
Vinyl acetate	ND	7.72	"	"	"	"	"	"	
Vinyl chloride	ND	3.86	"	"	"	"	"	"	
Total Xylenes	ND	7.72	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*73.8-142*	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*115 %*	*61.8-168*	"	"	"	"	"	
Surrogate: Toluene-d8		*77.7 %*	*70.1-131*	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*69.9 %*	*66.3-119*	"	"	"	"	"	

Great Lakes Analytical--Buffalo Grove

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Andy Johnson, Project Manager

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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	Reported:
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:02

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-06-1820 (B212131-05RE1) Soil	**Sampled: 12/09/02 13:05**	**Received: 12/09/02 16:00**							QC
Acetone	ND	17.1	ug/kg dry	1	2120209	12/10/02	12/11/02	5035/8260B	
Benzene	ND	3.42	"	"	"	"	"	"	
Bromodichloromethane	ND	3.42	"	"	"	"	"	"	
Bromoform	ND	3.42	"	"	"	"	"	"	
Bromomethane	ND	3.42	"	"	"	"	"	"	
2-Butanone	ND	6.84	"	"	"	"	"	"	
Carbon disulfide	ND	3.42	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.42	"	"	"	"	"	"	
Chlorobenzene	ND	3.42	"	"	"	"	"	"	
Chlorodibromomethane	ND	3.42	"	"	"	"	"	"	
Chloroethane	ND	3.42	"	"	"	"	"	"	
Chloroform	ND	3.42	"	"	"	"	"	"	
Chloromethane	ND	3.42	"	"	"	"	"	"	
1,1-Dichloroethane	ND	3.42	"	"	"	"	"	"	
1,2-Dichloroethane	ND	3.42	"	"	"	"	"	"	
1,1-Dichloroethene	ND	3.42	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	3.42	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	3.42	"	"	"	"	"	"	
1,2-Dichloropropane	ND	3.42	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.05	"	"	"	"	"	"	
Ethylbenzene	ND	3.42	"	"	"	"	"	"	
2-Hexanone	ND	6.84	"	"	"	"	"	"	
Methylene chloride	ND	3.42	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	6.84	"	"	"	"	"	"	
Styrene	ND	3.42	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	3.42	"	"	"	"	"	"	
Tetrachloroethene	ND	3.42	"	"	"	"	"	"	
Toluene	ND	3.42	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	3.42	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	3.42	"	"	"	"	"	"	
Trichloroethene	ND	3.42	"	"	"	"	"	"	
Trichlorofluoromethane	ND	3.42	"	"	"	"	"	"	
Vinyl acetate	ND	6.84	"	"	"	"	"	"	
Vinyl chloride	ND	3.42	"	"	"	"	"	"	
Total Xylenes	ND	6.84	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*66.7 %*	*73.8-142*	"	"	"	"		L O4
Surrogate: 1,2-Dichloroethane-d4		*29.8 %*	*61.8-168*	"	"	"	"		L O4
Surrogate: Toluene-d8		*120 %*	*70.1-131*	"	"	"	"		
Surrogate: 4-Bromofluorobenzene		*90.1 %*	*66.3-119*	"	"	"	"		

Great Lakes Analytical--Buffalo Grove

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Andy Johnson, Project Manager

MOR 08645

COPY

GREAT LAKES ANALYTICAL
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CDM	Project: Morey Phase II	
125 S. Wacker Dr. Suite 600	Project Number: Morey P2	Reported:
Chicago IL, 60606	Project Manager: Mark Peters	12/12/02 16:02

Volatile Organic Compounds by EPA Method 5035/8260B

Great Lakes Analytical--Buffalo Grove

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MP-SB-06-3840 (B212131-06) Soil Sampled: 12/09/02 13:10 Received: 12/09/02 16:00									QC
Acetone	ND UJ	19.4	ug/kg dry	1	2120209	12/10/02	12/11/02	5035/8260B	
Benzene	ND	3.88	"	"	"	"	"	"	
Bromodichloromethane	ND	3.88	"	"	"	"	"	"	
Bromoform	ND	3.88	"	"	"	"	"	"	
Bromomethane	ND	3.88	"	"	"	"	"	"	
2-Butanone	ND UJ	7.76	"	"	"	"	"	"	
Carbon disulfide	ND UJ	3.88	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.88	"	"	"	"	"	"	
Chlorobenzene	ND	3.88	"	"	"	"	"	"	
Chlorodibromomethane	ND	3.88	"	"	"	"	"	"	
Chloroethane	ND	3.88	"	"	"	"	"	"	
Chloroform	ND	3.88	"	"	"	"	"	"	
Chloromethane	ND	3.88	"	"	"	"	"	"	
1,1-Dichloroethane	ND UJ	3.88	"	"	"	"	"	"	
1,2-Dichloroethane	ND	3.88	"	"	"	"	"	"	
1,1-Dichloroethene	ND	3.88	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	3.88	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	3.88	"	"	"	"	"	"	
1,2-Dichloropropane	ND	3.88	"	"	"	"	"	"	
1,3-Dichloropropene (cis + trans)	ND	2.33	"	"	"	"	"	"	
Ethylbenzene	ND	3.88	"	"	"	"	"	"	
2-Hexanone	ND UJ	7.76	"	"	"	"	"	"	
Methylene chloride	ND	3.88	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND UJ	7.76	"	"	"	"	"	"	
Styrene	ND	3.88	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	3.88	"	"	"	"	"	"	
Tetrachloroethene	ND	3.88	"	"	"	"	"	"	
Toluene	ND	3.88	"	"	"	"	12/12/02	"	
1,1,1-Trichloroethane	ND	3.88	"	"	"	"	12/11/02	"	
1,1,2-Trichloroethane	ND	3.88	"	"	"	"	"	"	
Trichloroethene	ND	3.88	"	"	"	"	"	"	
Trichlorofluoromethane	ND	3.88	"	"	"	"	"	"	
Vinyl acetate	ND UJ	7.76	"	"	"	"	"	"	
Vinyl chloride	ND	3.88	"	"	"	"	"	"	
Total Xylenes	ND	7.76	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.6 %*	*73.8-142*	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91.5 %*	*61.8-168*	"	"	"	"	"	
Surrogate: Toluene-d8		*96.6 %*	*70.1-131*	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.7 %*	*66.3-119*	"	"	"	"	"	

Great Lakes Analytical--Buffalo Grove

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Andy Johnson

Andy Johnson, Project Manager

MOR 08646

CDM
Data Validation Report

Project/Site Name:	Morey Phase II
Collection Date:	July 18, 2003
CDM Report Date:	September 19, 2005
Matrix:	Soil
Parameters:	Volatiles
Validation Level:	Level IV
Laboratory:	STAT Analysis Corporation
Sample Delivery Group (SDG):	0307169

Sample Identification

Site ID	Lab ID
SB-07 (4'-6')	0307169-001
SB-08 (4'-6')	0307169-002
SB-08D	0307169-003
SB-09 (2'-4')	0307169-004
SB-10 (1'-3')	0307169-005
FB-01	0307169-006
SB-11 (1'-3')	0307169-007
SB-12 (1'-3')	0307169-008
SB-13 (1'-3')	0307169-009
SB-14 (1'-3')	0307169-010
SB-15 (1'-3')	0307169-011
SB-16 (1'-3')	0307169-012
TB-01	0307169-013

Introduction

This data review covers 11 soil samples, one field blank and one trip blank listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

Data qualifiers were added as appropriate to a copy of the data reports. These modified data reports are provided at the end of this report.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

U Indicates the compound was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990.

For the purpose of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) and 0.05 relative response factor (RRF) National Functional Guideline criteria. All compounds were within the validation criteria with the following exceptions:

Date	Compound	%RSD	Associated Samples	Flag	RRF
7/20/03 VOC-1	Acetone	50.79	SB-07, SB-08D SB-09, SB-10 SB-11, SB-12	J (all detects)	
7/21/03 VOC-4	Bromomethane	42.41	FB-01, TB-01	J (all detects)	
7/22/03 VOC-2	Acetone	50.06	SB-13, SB-14 SB-15, SB-16 SB-08	J (all detects)	

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purpose of technical evaluation, all compounds were evaluated against the 25.0% (%D) and 0.05 RRF National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

All continuing calibration criteria were met.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

No volatile contamination was found in the field blanks or trip blanks associated with this sample set.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries for all samples were within criteria.

VII. Matrix Spike/Matrix Spike Duplicates

Sample SB-09 (2'-4') was used for matrix spike analysis. Several compounds had recoveries that were outside criteria. A copy of MS/MSD reporting sheet is attached to this report. All compounds that had poor recovery were qualified as estimated "J" or "UJ" in sample SB-09 (2'-4') only. Based on professional judgment, since the surrogate, continuing calibration and the majority of LCS criteria were met for this SDG, none of the remaining samples were qualified based on MS/MSD results.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Date	Compound	%R	Associated Samples	Flag
VLCS072403-1 (VOC-1)	7/24/03	Acetone	238	SB-07, SB-08D	J (all detects)
		2-Butanone	137	SB-09, SB-10 SB-11, SB-12	UJ (all non-detects)
VLCSD072403-1		Acetone	247		
		2-Butanone	133		
VLCS072403-2 (VOC-2)	7/24/03	Acetone	136	SB-13, SB-14 SB-15, SB-16	J (all detects) UJ (all non-detects)
VLCSD072403-2		Acetone	196	SB-08	
		2-Butanone	146		
		4-Methyl-2-pentanone	131		
		Carbon Disulfide	132		

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standards met criteria

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples for all samples.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for all samples.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment of Data

Data flags have been applied to data reports and attached at the end of this report.

XVI. Field Duplicates

Results for sample SB-08-(2'-4') and its duplicate SB-08D were reviewed and found to be comparable.

XVII. Additional Findings

During review of the raw data in was determined that sample SB-08 (4'-6) was misidentified as SB-07 (4'-6) on line 9 of Form 5A on page 141. The data package was not corrected but a copy of the corrected form is attached to this report.

Data Validation Checklist,
Worksheets
And
Supplemental Information

VALIDATION FINDINGS CHECKLIST

LDC#: Merry Phase II
SDG#: 0307169

Reviewer: Silicon

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	X			
Cooler temperature criteria was met.	X			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	X			
Were all samples analyzed within the 12 hour clock criteria?	X			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	X			
Were all percent relative standard deviations (%RSD) and relative response factors (RFF) within method criteria for all CCCs and SPCCs?	X			
Was a curve fit used for evaluation? If yes, what was the acceptance criteria used?	X			$r^2 < 0.99$ 0.99
Did the initial calibration meet the curve fit acceptance criteria?	X			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?		X		See work sheet
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	X			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	X			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		X		See work sheet
V. Blanks				
Was a method blank associated with every sample in this SDG?	X			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	X			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	~~X~~ SC	(X)		~~See work sheet~~ SC
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	X			
If the percent recovery (%R) for one of more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?				
VII. Matrix spike/matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in the SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	X			
Was a MS/MSD analyzed every 20 samples of each matrix?	X			

VALIDATION FINDINGS CHECKLIST

LDC#: Marys Pharell II
SDG#: 0307169

Reviewer: S. Kirchner

Method: Volatiles (EPA SW 846 Method 8260B)

Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		X		Summary Attached
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	X			
Was an LCS analyzed per analytical batch?	X			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		X		See work sheet
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			X	
Were the performance evaluation (PE) samples within the acceptance limits?			X	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	X			
Were retention times within +/- 30 seconds of the associated calibration standard?	X			
XI. Target compound identification				
Were relative retention times (RRTs) within +/- 0.06 RRT units of the standard?	X			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	X			
Were chromatogram peaks verified and accounted for?	X			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	X			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	X			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	X			
Were relative intensities of the major ions within +/- 20% between the sample and the reference spectra?	X			
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	X			
XIV. System performance				
System performance was found to be acceptable.	X			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	X			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	X			
Target compounds were detected in the field duplicates.	X			1 - hit
XVII. Field blanks				
Field blanks were identified in this SDG.	X			
Target compounds were detected in the field blanks.		X		

Crosswalk - Worksheet ID vs. Compound Name

Worksheet ID	Compound Name	CAS No.	System Performance
A	Dichlorodifluoromethane	75-71-8	SPCC (%RSD)
B	Chloromethane	74-87-3	
C	VinylChloride	75-01-4	CCC (RRF)
D	Bromomethane	74-83-9	
E	Chloroethane	75-00-3	
F	Trichlorofluoromethane	75-69-4	
G	1,1-Dichloroethene	75-35-4	CCC (RRF)
H	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	
I	Acetone	67-64-1	
J	CarbonDisulfide	75-15-0	
K	MethylAcetate	79-20-9	
L	MethyleneChloride	75-09-2	
M	trans-1,2-Dichloroethene	156-60-5	
N	tert-ButylMethylEther	1634-04-4	
O	1,1-Dichloroethane	75-34-3	SPCC (%RSD)
P	cis-1,2-Dichloroethene	156-59-2	
Q	2-Butanone	78-93-3	
R	Bromochloromethane	74-97-5	
S	Chloroform	67-66-3	CCC (RRF)
T	1,1,1-Trichloroethane	71-55-6	
U	Cyclohexane	110-82-7	
V	CarbonTetrachloride	56-23-5	
W	Benzene	71-43-2	
X	1,2-Dichloroethane	107-06-2	
Y	Trichloroethene	79-01-6	
Z	Methylcyclohexane	108-87-2	
AA	1,2-Dichloropropane	78-87-5	CCC (RRF)
BB ✓	Bromodichloromethane	75-27-4	
CC	cis-1,3-Dichloropropene	10061-01-5	
DD	4-Methyl-2-pentanone	108-10-1	
EE	Toluene	108-88-3	CCC (RRF)
FF	trans-1,3-Dichloropropene	10061-02-6	
GG	1,1,2-Trichloroethane	79-00-5	
HH ✓	Tetrachloroethene	127-18-4	
II	2-Hexanone	591-78-6	
JJ	Dibromochloromethane	124-48-1	
KK ✓	1,2-Dibromoethane	106-93-4	
LL ✓	Chlorobenzene	108-90-7	SPCC (%RSD)
MM ✓	Ethylbenzene	100-41-4	CCC (RRF)
NN ✓	Xylenes(total)	1330-20-7	
OO ✓	Styrene	100-42-5	
PP ✓	Bromoform	75-25-2	SPCC (%RSD)
QQ	Isopropylbenzene	98-82-8	
RR	1,1,2,2-Tetrachloroethane	79-34-5	SPCC (%RSD)
SS	1,3-Dichlorobenzene	541-73-1	
TT	1,4-Dichlorobenzene	106-46-7	
UU	1,2-Dichlorobenzene	95-50-1	
VV	1,2-Dibromo-3-chloropropane	96-12-8	
WW	1,2,4-Trichlorobenzene	120-82-1	
XX	1,2,4-Trichlorobenzene	87-61-6	
YY			
ZZ			
AAA			
BBB			
CCC			

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Morey Phase II SDG: 0307169

Instrument ID: VOC1 DATE ANALYZED: 7/24/03 BFB Tune OK? (YES) NO

Sample Number	Hold Time		Standards: (↑, ↓; ↓↓=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
VSTD052										
VBLK072403-1										
VLCS072403-1										
VLCSD072403-1										
SB-07 (4-6)										↓
SB-08D										
SB-09 (2-4)										
SB-09 (2-4) MS										
" MSD										
SB-10 (1-3)										
SB-11 (1-3)										↓
SB-12 (1-3)										↓

NT

MS/MSD OK? YES NO Comment: — Attached —

LCS OK? YES (NO) Comment: LCS: Q-137%; I-238%
LCSD: Q-131%; I-247%

IC Date: 7/20/03 CC Date: 7/24 Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	≥ 25%	"J", "UJ", "R" (Hit/Non-Detect)
Acetone		50.79			J/-

METHOD BLANK: OK FIELD BLANK: OK TRIP BLANK: OK

NT non-target compounds

MOR 08657

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Morsey Phase II SDG: 0307169

Instrument ID: VOC-4 DATE ANALYZED: 7/22/03 BFB Tune OK? (YES) NO

Sample Number	Hold Time		Standards: (↑, ↓; ↓↓=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
VSTD050										
VBLKO72203-4										
VLCSO72203-4										
VLCSDO72203-4										
FB-01										
TB-01										

MS/MSD OK? YES NO Comment:

LCS OK? YES (NO) Comment: LCS: N-332 / LCSD: N-297 / Non Target

IC Date: 7/21/03 CC Date: 7/22 Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	"J", "UJ", "R" (Hit/Non-Detect)
~~Acetone~~ Bromomethane		~~47.41~~ 6.79			J/-
MTBE	0.035	89.25		244	Non Target

METHOD BLANK: OK FIELD BLANK: OK TRIP BLANK: OK

DV-worksheet-Method 8260B using calibration criteria from CLP National Functional Guidelines for Organic Reveiw-1999

MOR 08658

TABLE V-1: VOLATILE ANALYSIS 8260B(DV-under EPA NFG)

CASE: Morrisey Phase II SDG: 0307169

Instrument ID: VOC-2 DATE ANALYZED: 7/24/03 BFB Tune OK? (YES) NO

Sample Number	Hold Time		Standards: (↑, ↓; ↓↓=<10%)							
			Surrogates				Internals			
	Aro	All	1	2	3	4	1	2	3	4
VSTD050										
VBLK072403-2										
VLCS072403-2										
VLCSD72403-2										
SB-13 (1-3)										
SB-14 (1-3)										
SB-15 (1-3)										
SB-16 (1-3)										
~~SB-07 (4-6)~~										
SB-08 (4-6) according to Raw Data										

MS/MSD OK? YES NO Comment:

LCS OK? YES (NO) Comment: LCS: TCE - 136% LCSD: TCE - 140% RAD-34 ; CE - 146% ; DCE - 131%; TCE - 132%

IC Date: 7/22/03 CC Date: 7/24/03 Resulting Action

COMPOUND	< 0.05	> 30%	< 0.05	> 25%	"J", "UJ", "R" (Hit/Non-Detect)
Trichlorofluoromethane		31.12			~~J/~~ = Non Target
Acetone		49.06			J/-

METHOD BLANK: O/C FIELD BLANK: O/C TRIP BLANK: O/C

DV-worksheet-Method 8260B using calibration criteria from CLP National Functional Guidelines for Organic Reveiw-1999

STAT Analysis Corporation

COPY

Date: *August 29, 2005*

CLIENT: Camp, Dresser and McKee
Work Order: 0307169
Project: 22171-37617, Former Morsey Site

ANALYTICAL QC SUMMARY REPORT

BatchID: 6973

CLP Criteria

Sample ID 0307169-004AMS | SampType: MS | TestCode: VOC_5035 | Units: mg/Kg-dry | Prep Date: 07/22/03 | Run ID: VOA-1_030724A
Client ID: SB-09 (2'-4') | Batch ID: 6973 | TestNo: SW5035/8260 | Analysis Date: 07/24/03 | SeqNo: 167667

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	0.07456	0.026	0.05197	0	143	70	130	0	0		S
Benzene	0.02213	0.0052	0.05197	0.002434	37.9	37	151	0	0		
Bromodichloromethane	0.01795	0.0052	0.05197	0	34.5	70	130	0	0		S
Bromoform	0.01352	0.0052	0.05197	0	26	70	130	0	0		S
Bromomethane	0.04173	0.010	0.05197	0	80.3	70	130	0	0		
2-Butanone	0.03637	0.010	0.05197	0	70	70	130	0	0		S
Carbon disulfide	0.03144	0.0052	0.05197	0	60.5	70	130	0	0		S
Carbon tetrachloride	0.02676	0.0052	0.05197	0	51.5	70	130	0	0		S
Chlorobenzene	0.009147	0.0052	0.05197	0	17.6	37	160	0	0		S
Dibromochloromethane	0.01495	0.0052	0.05197	0	28.8	70	130	0	0		S
Chloroethane	0.04457	0.010	0.05197	0	85.8	70	130	0	0		
Chloroform	0.02644	0.0052	0.05197	0	50.9	70	130	0	0		S
Chloromethane	0.04533	0.0052	0.05197	0	87.2	70	130	0	0		
1,1-Dichloroethane	0.03464	0.0052	0.05197	0	66.7	70	130	0	0		S
1,2-Dichloroethane	0.0246	0.0052	0.05197	0	47.3	70	130	0	0		S
1,1-Dichloroethene	0.03994	0.0052	0.05197	0	76.9	0	234	0	0		
cis-1,2-Dichloroethene	0.02504	0.0052	0.05197	0	48.2	70	130	0	0		S
trans-1,2-Dichloroethene	0.0274	0.0052	0.05197	0	52.7	70	130	0	0		S
1,2-Dichloropropane	0.02164	0.0052	0.05197	0	41.6	70	130	0	0		S
cis-1,3-Dichloropropene	0.01239	0.0052	0.05197	0	23.8	70	130	0	0		S
trans-1,3-Dichloropropene	0.01203	0.0052	0.05197	0	23.1	70	130	0	0		S
Ethylbenzene	0.007816	0.0052	0.05197	0.001784	11.6	70	130	0	0		S
2-Hexanone	0.02866	0.010	0.05197	0	55.1	70	130	0	0		S
4-Methyl-2-pentanone	0.03205	0.010	0.05197	0	61.7	70	130	0	0		S
Methylene chloride	0.03127	0.010	0.05197	0	60.2	70	130	0	0		S
Styrene	0.007702	0.0052	0.05197	0	14.8	70	130	0	0		S
1,1,2,2-Tetrachloroethane	0.01625	0.0052	0.05197	0	31.3	70	130	0	0		S
Tetrachloroethene	0.01005	0.0052	0.05197	0	19.3	70	130	0	0		S
Toluene	0.01338	0.0052	0.05197	0.005712	14.7	47	150	0	0		S
1,1,1-Trichloroethane	0.03072	0.0052	0.05197	0	59.1	70	130	0	0		S

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

CLIENT: Camp, Dresser and McKee
Work Order: 0307169
Project: 22171-37617, Former Morsey Site

ANALYTICAL QC SUMMARY REPORT

BatchID: 6973

Sample ID **0307169-004AMS** SampType: **MS** TestCode: **VOC_5035** Units: **mg/Kg-dry** Prep Date: **07/22/03** Run ID: **VOA-1_030724A**
Client ID: **SB-09 (2'-4')** Batch ID: **6973** TestNo: **SW5035/8260** Analysis Date: **07/24/03** SeqNo: **167667**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	0.01866	0.0052	0.05197	0	35.9	70	130	0	0		S
Trichloroethene	0.01611	0.0052	0.05197	0	31	71	157	0	0		S
Vinyl chloride	0.04715	0.0052	0.05197	0	90.7	70	130	0	0		
Surr: 1,2-Dichloroethane-d4	0.06051	0	0.05197	0	116	78	160	0	0		
Surr: 4-Bromofluorobenzene	0.05039	0	0.05197	0	97	44	114	0	0		
Surr: Dibromofluoromethane	0.05415	0	0.05197	0	104	74	150	0	0		
Surr: Toluene-d8	0.05279	0	0.05197	0	102	62	122	0	0		

Sample ID **0307169-004AMSD** SampType: **MSD** TestCode: **VOC_5035** Units: **mg/Kg-dry** Prep Date: **07/22/03** Run ID: **VOA-1_030724A**
Client ID: **SB-09 (2'-4')** Batch ID: **6973** TestNo: **SW5035/8260** Analysis Date: **07/24/03** SeqNo: **167668**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	0.05212	0.025	0.05058	0	103	70	130	0.07456	35.4	25	R
Benzene	0.01539	0.0051	0.05058	0.002434	25.6	37	151	0.02213	35.9	25	SR
Bromodichloromethane	0.01103	0.0051	0.05058	0	21.8	70	130	0.01795	47.8	25	SR
Bromoform	0.006394	0.0051	0.05058	0	12.6	70	130	0.01352	71.6	25	SR
Bromomethane	0.0365	0.010	0.05058	0	72.2	70	130	0.04173	13.4	25	
2-Butanone	0.02776	0.010	0.05058	0	54.9	70	130	0.03637	26.8	25	SR
Carbon disulfide	0.03238	0.0051	0.05058	0	64	70	130	0.03144	2.95	25	S
Carbon tetrachloride	0.02057	0.0051	0.05058	0	40.7	70	130	0.02676	26.2	25	SR
Chlorobenzene	0.004279	0.0051	0.05058	0	8.46	37	160	0.009147	0	25	JS
Dibromochloromethane	0.007689	0.0051	0.05058	0	15.2	70	130	0.01495	64.1	25	SR
Chloroethane	0.04258	0.010	0.05058	0	84.2	70	130	0.04457	4.56	25	
Chloroform	0.01932	0.0051	0.05058	0	38.2	70	130	0.02644	31.1	25	SR
Chloromethane	0.04195	0.0051	0.05058	0	82.9	70	130	0.04533	7.73	25	
1,1-Dichloroethane	0.02765	0.0051	0.05058	0	54.7	70	130	0.03464	22.5	25	S
1,2-Dichloroethane	0.01593	0.0051	0.05058	0	31.5	70	130	0.0246	42.8	25	SR
1,1-Dichloroethene	0.03433	0.0051	0.05058	0	67.9	0	234	0.03994	15.1	25	
cis-1,2-Dichloroethene	0.01852	0.0051	0.05058	0	36.6	70	130	0.02504	29.9	25	SR
trans-1,2-Dichloroethene	0.02166	0.0051	0.05058	0	42.8	70	130	0.0274	23.4	25	S
1,2-Dichloropropane	0.01422	0.0051	0.05058	0	28.1	70	130	0.02164	41.4	25	SR

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Camp, Dresser and McKee
Work Order: 0307169
Project: 22171-37617, Former Morsey Site

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ANALYTICAL QC SUMMARY REPORT

BatchID: 6973

Sample ID 0307169-004AMSD	SampType: MSD	TestCode: VOC_5035	Units: mg/Kg-dry	Prep Date: 07/22/03	Run ID: VOA-1_030724A
Client ID: SB-09 (2'-4')	Batch ID: 6973	TestNo: SW5035/8260		Analysis Date: 07/24/03	SeqNo: 167668

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.009145	0.0051	0.05058	0	18.1	70	130	0.01239	30.1	25	SR
trans-1,3-Dichloropropene	0.008103	0.0051	0.05058	0	16	70	130	0.01203	39.0	25	SR
Ethylbenzene	0.003632	0.0051	0.05058	0.001784	3.65	70	130	0.007816	0	25	JS
2-Hexanone	0.01782	0.010	0.05058	0	35.2	70	130	0.02866	46.7	25	SR
4-Methyl-2-pentanone	0.02116	0.010	0.05058	0	41.8	70	130	0.03205	40.9	25	SR
Methylene chloride	0.02356	0.010	0.05058	0	46.6	70	130	0.03127	28.1	25	SR
Styrene	0.003045	0.0051	0.05058	0	6.02	70	130	0.007702	0	25	JS
1,1,2,2-Tetrachloroethane	0.007496	0.0051	0.05058	0	14.8	70	130	0.01625	73.7	25	SR
Tetrachloroethene	0.006019	0.0051	0.05058	0	11.9	70	130	0.01005	50.2	25	SR
Toluene	0.007931	0.0051	0.05058	0.005712	4.39	47	150	0.01338	51.1	25	SR
1,1,1-Trichloroethane	0.0235	0.0051	0.05058	0	46.5	70	130	0.03072	26.6	25	SR
1,1,2-Trichloroethane	0.01041	0.0051	0.05058	0	20.6	70	130	0.01866	56.7	25	SR
Trichloroethene	0.0106	0.0051	0.05058	0	21	71	157	0.01611	41.2	25	SR
Vinyl chloride	0.04504	0.0051	0.05058	0	89	70	130	0.04715	4.57	25	
Surr: 1,2-Dichloroethane-d4	0.05952	0	0.05058	0	118	78	160	0	0	0	
Surr: 4-Bromofluorobenzene	0.04912	0	0.05058	0	97.1	44	114	0	0	0	
Surr: Dibromofluoromethane	0.05679	0	0.05058	0	112	74	150	0	0	0	
Surr: Toluene-d8	0.05233	0	0.05058	0	103	62	122	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

COPY

Lab Name: STAT Analysis Contract:

Lab Code: 037169 Case No.: SAS No.: SDG No.:

Lab File ID: 07240301.D BFB Injection Date: 07/24/2003

Instrument ID: VOC-2 BFB Injection Time: 8:09

GC Column: DB 624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.4
75	30.0 - 66.0% of mass 95	50.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	62.5
175	4.0 - 9.0% of mass 174	4.4 (7.0)1
176	93.0 - 101.0% of mass 174	61.7 (98.8)1
177	5.0 - 9.0% of mass 176	3.9 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	07240302.D	07/24/2003	8:28
02	VBLK072403-2	VBLK072403-2	07240303.D	07/24/2003	9:03
03	VLCS072403-2	VLCS072403-2	07240304.D	07/24/2003	9:37
04	VLCSD072403-2	VLCSD072403-2	07240305.D	07/24/2003	10:12
05	SB-13 (1'-3')	SAMP 0307169-009A	07240310.D	07/24/2003	13:07
06	SB-14 (1'-3')	SAMP 0307169-010A	07240311.D	07/24/2003	13:42
07	SB-15 (1'-3')	SAMP 0307169-011A	07240312.D	07/24/2003	14:17
08	BS-16 (1'-3')	SAMP 0307169-012A	07240313.D	07/24/2003	14:51
09	~~SB-07 (4'-6')~~ SB-08(4'-6')	SAMP 0307169-002A	07240314.D	07/24/2003	15:26

Qualified Data Reports

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STAT Analysis Corporation

Date: July 25, 2003

Client: Camp, Dresser and McKee
Project: 22171-37617, Former Morsey Site
Lab Order: 0307169

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0307169-001A	SB-07 (4'-6')		7/18/2003 8:55:00 AM	7/18/2003
0307169-001B	SB-07 (4'-6')		7/18/2003 8:55:00 AM	7/18/2003
0307169-002A	SB-08 (4'-6')		7/18/2003 9:40:00 AM	7/18/2003
0307169-002B	SB-08 (4'-6')		7/18/2003 9:40:00 AM	7/18/2003
0307169-003A	SB-08D		7/18/2003 9:45:00 AM	7/18/2003
0307169-003B	SB-08D		7/18/2003 9:45:00 AM	7/18/2003
0307169-004A	SB-09 (2'-4')		7/18/2003 10:20:00 AM	7/18/2003
0307169-004B	SB-09 (2'-4')		7/18/2003 10:20:00 AM	7/18/2003
0307169-005A	SB-10 (1'-3')		7/18/2003 11:00:00 AM	7/18/2003
0307169-005B	SB-10 (1'-3')		7/18/2003 11:00:00 AM	7/18/2003
0307169-006A	FB-01		7/18/2003 11:10:00 AM	7/18/2003
0307169-007A	SB-11 (1'-3')		7/18/2003 11:40:00 AM	7/18/2003
0307169-007B	SB-11 (1'-3')		7/18/2003 11:40:00 AM	7/18/2003
0307169-008A	SB-12 (1'-3')		7/18/2003 11:55:00 AM	7/18/2003
0307169-008B	SB-12 (1'-3')		7/18/2003 11:55:00 AM	7/18/2003
0307169-009A	SB-13 (1'-3')		7/18/2003 12:20:00 PM	7/18/2003
0307169-009B	SB-13 (1'-3')		7/18/2003 12:20:00 PM	7/18/2003
0307169-010A	SB-14 (1'-3')		7/18/2003 12:45:00 PM	7/18/2003
0307169-010B	SB-14 (1'-3')		7/18/2003 12:45:00 PM	7/18/2003
0307169-011A	SB-15 (1'-3')		7/18/2003 1:15:00 PM	7/18/2003
0307169-011B	SB-15 (1'-3')		7/18/2003 1:15:00 PM	7/18/2003
0307169-012A	SB-16 (1'-3')		7/18/2003 1:35:00 PM	7/18/2003
0307169-012B	SB-16 (1'-3')		7/18/2003 1:35:00 PM	7/18/2003
0307169-013A	TB-01		7/18/2003 8:00:00 AM	7/18/2003

MOR 08665

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NVLAP

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client:	Camp, Dresser and McKee	**Client Sample ID:**	SB-07 (4'-6')
Lab Order:	0307169	**Collection Date:**	7/18/2003 8:55:00 AM
Project:	22171-37617, Former Morsey Site	**Matrix:**	Soil
Lab ID:	0307169-001		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **PS**
Acetone	ND	0.026	UJ	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0051		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.01		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.01	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0051		mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0051		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.01		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0051		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0051		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0051		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.01	UJ	mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.01		mg/Kg-dry	1	7/24/2003
Methylene chloride	0.015	0.01		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Tetrachloroethene	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Toluene	0.0058	0.0051		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0051		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	15.99	0.01		wt%	1	7/19/2003

SK 9/15/05

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

STAT Analysis Corporation
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Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-002

Client Sample ID: SB-08 (4'-6')
Collection Date: 7/18/2003 9:40:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **MP**
Acetone	ND	0.024	UJ	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0048		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0048		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0048		mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.0097		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.0097	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0048		mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0048		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0048		mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0048		mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.0097		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0048		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0048		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0048		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0048		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0048		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0048		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0048		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0048		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0048		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0048		mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0048		mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.0097		mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.0097	UJ	mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.0097		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0048		mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0048		mg/Kg-dry	1	7/24/2003
Tetrachloroethene	0.13	0.0048		mg/Kg-dry	1	7/24/2003
Toluene	ND	0.0048		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0048		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0048		mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0048		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0048		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0048		mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0048		mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	11.53	0.01		wt%	1	7/19/2003

SK 9/11/03

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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NVLAP AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-003

Client Sample ID: SB-08D
Collection Date: 7/18/2003 9:45:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **PS**
Acetone	ND	0.024	U5	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0047		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0047		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0047		mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.0094		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.0094	U5	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0047		mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0047		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0047		mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0047		mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.0094		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0047		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0047		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0047		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0047		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0047		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0047		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0047		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0047		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0047		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0047		mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0047		mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.0094		mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.0094		mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.0094		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0047		mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0047		mg/Kg-dry	1	7/24/2003
Tetrachloroethene	0.19	0.0047		mg/Kg-dry	1	7/24/2003
Toluene	ND	0.0047		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0047		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0047		mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0047		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0047		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0047		mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0047		mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	11.44	0.01		wt%	1	7/19/2003

SC 9/16/03

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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NVLAP AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-004

Client Sample ID: SB-09 (2'-4')
Collection Date: 7/18/2003 10:20:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **PS**
Acetone	ND	0.03	UJ	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.006		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.012		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.012	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.012		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.006		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.006		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.006		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.006		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.006		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.006		mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.006		mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.012		mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.012		mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.012		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.006		mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.006		mg/Kg-dry	1	7/24/2003
Tetrachloroethene	ND	0.006		mg/Kg-dry	1	7/24/2003
Toluene	ND	0.006		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.006		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.006		mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.006	UJ	mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.006		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.006		mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.006		mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	14.89	0.01		wt%	1	7/19/2003

SK 9/15/05

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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NVLAP AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-005

Client Sample ID: SB-10 (1'-3')
Collection Date: 7/18/2003 11:00:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **PS**
Acetone	ND	0.027	UJ	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0054		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0054		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0054		mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.011		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.011	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0054		mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0054		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0054		mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0054		mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.011		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0054		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0054		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0054		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0054		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0054		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0054		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0054		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0054		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0054		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0054		mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0054		mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.011		mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.011		mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.011		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0054		mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0054		mg/Kg-dry	1	7/24/2003
Tetrachloroethene	0.0092	0.0054		mg/Kg-dry	1	7/24/2003
Toluene	0.006	0.0054		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0054		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0054		mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0054		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0054		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0054		mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0054		mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	12.42	0.01		wt%	1	7/19/2003

SK 9/15/05

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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NVLAP AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-006

Client Sample ID: FB-01
Collection Date: 7/18/2003 11:10:00 AM
Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B**		Prep Date:		Analyst: **MP**
Acetone	ND	0.01	~~UJ~~ SK 9/15/05	mg/L	1	7/22/2003
Benzene	ND	0.005		mg/L	1	7/22/2003
Bromodichloromethane	ND	0.005		mg/L	1	7/22/2003
Bromoform	ND	0.005		mg/L	1	7/22/2003
Bromomethane	ND	0.01	UJ	mg/L	1	7/22/2003
2-Butanone	ND	0.01	~~UJ~~ SK 9/15/05	mg/L	1	7/22/2003
Carbon disulfide	ND	0.005		mg/L	1	7/22/2003
Carbon tetrachloride	ND	0.005		mg/L	1	7/22/2003
Chlorobenzene	ND	0.005		mg/L	1	7/22/2003
Dibromochloromethane	ND	0.005		mg/L	1	7/22/2003
Chloroethane	ND	0.01		mg/L	1	7/22/2003
Chloroform	ND	0.005		mg/L	1	7/22/2003
Chloromethane	ND	0.005		mg/L	1	7/22/2003
1,1-Dichloroethane	ND	0.005		mg/L	1	7/22/2003
1,2-Dichloroethane	ND	0.005		mg/L	1	7/22/2003
1,1-Dichloroethene	ND	0.005		mg/L	1	7/22/2003
cis-1,2-Dichloroethene	ND	0.005		mg/L	1	7/22/2003
trans-1,2-Dichloroethene	ND	0.005		mg/L	1	7/22/2003
1,2-Dichloropropane	ND	0.005		mg/L	1	7/22/2003
cis-1,3-Dichloropropene	ND	0.005		mg/L	1	7/22/2003
trans-1,3-Dichloropropene	ND	0.005		mg/L	1	7/22/2003
Ethylbenzene	ND	0.005		mg/L	1	7/22/2003
2-Hexanone	ND	0.01		mg/L	1	7/22/2003
4-Methyl-2-pentanone	ND	0.01		mg/L	1	7/22/2003
Methylene chloride	ND	0.005		mg/L	1	7/22/2003
Styrene	ND	0.005		mg/L	1	7/22/2003
1,1,2,2-Tetrachloroethane	ND	0.005		mg/L	1	7/22/2003
Tetrachloroethene	ND	0.005		mg/L	1	7/22/2003
Toluene	ND	0.005		mg/L	1	7/22/2003
1,1,1-Trichloroethane	ND	0.005		mg/L	1	7/22/2003
1,1,2-Trichloroethane	ND	0.005		mg/L	1	7/22/2003
Trichloroethene	ND	0.005		mg/L	1	7/22/2003
Vinyl chloride	ND	0.005		mg/L	1	7/22/2003
m,p-Xylene	ND	0.005		mg/L	1	7/22/2003
o-Xylene	ND	0.005		mg/L	1	7/22/2003

SK 9/15/05

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-007

Client Sample ID: SB-11 (1'-3')
Collection Date: 7/18/2003 11:40:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **PS**
Acetone	ND	0.033	UJ	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0065		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0065		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.013		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.013	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0065		mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0065		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.013		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0065		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0065		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0065		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0065		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0065		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0065		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0065	~~UJ~~ Blank	mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0065		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0065		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.013	UJ	mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.013		mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.013		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
Tetrachloroethene	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
Toluene	0.0069	0.0065		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0065		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0065		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0065		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0065	UJ	mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	12.39	0.01		wt%	1	7/19/2003

SK 9/15/03

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-008

Client Sample ID: SB-12 (1'-3')
Collection Date: 7/18/2003 11:55:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **PS**
Acetone	0.047	0.032	J	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0063		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0063		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.013		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.013	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0063		mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0063		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.013		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0063		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0063		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0063		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0063		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0063		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0063		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0063	UJ SR 9/15/05	mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0063		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0063		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.013	UJ	mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.013		mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.013		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
Tetrachloroethene	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
Toluene	ND	0.0063		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0063		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0063		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0063		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0063	UJ	mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	14.65	0.01		wt%	1	7/19/2003

SR 9/15/05

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client:	Camp, Dresser and McKee	**Client Sample ID:**	SB-13 (1'-3')
Lab Order:	0307169	**Collection Date:**	7/18/2003 12:20:00 PM
Project:	22171-37617, Former Morsey Site	**Matrix:**	Soil
Lab ID:	0307169-009		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **MP**
Acetone	0.037	0.027	J	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0055		mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.011		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.011	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0055	UJ	mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0055		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.011		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0055		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0055		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0055		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0055		mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.011		mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.011	UJ	mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.011		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
Tetrachloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Toluene	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0055		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0055		mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	17.79	0.01		wt%	1	7/19/2003

SC 9/15/05

Qualifiers:
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R - RPD outside accepted recovery limits
E - Value above quantitation range

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-010

Client Sample ID: SB-14 (1'-3')
Collection Date: 7/18/2003 12:45:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **MP**
Acetone	0.043	0.025	J	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0051		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0051		mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.01		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.01	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0051	UJ	mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0051		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0051		mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.01		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0051		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0051		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0051		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0051		mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0051		mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.01		mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.01	UJ	mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.01		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
Tetrachloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
Toluene	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0051		mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0051		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0051		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0051		mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0051		mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	15.09	0.01		wt%	1	7/19/2003

SK 9/15/05

Qualifiers:
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R - RPD outside accepted recovery limits
E - Value above quantitation range

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Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-011

Client Sample ID: SB-15 (1'-3')
Collection Date: 7/18/2003 1:15:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **MP**
Acetone	0.052	0.028	J	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.0055		mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.011		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.011	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.0055	UJ	mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.0055		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.011		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.0055		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.0055		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.0055		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.0055		mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.011		mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.011	UJ	mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.011		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
Tetrachloroethene	0.014	0.0055		mg/Kg-dry	1	7/24/2003
Toluene	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.0055		mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.0055		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.0055		mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.0055		mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	15.45	0.01		wt%	1	7/19/2003

SR 9/15/05

Qualifiers:
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J - Analyte detected below quanititation limits
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R - RPD outside accepted recovery limits
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NVLAP AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-012

Client Sample ID: SB-16 (1'-3')
Collection Date: 7/18/2003 1:35:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **7/22/2003**		Analyst: **MP**
Acetone	0.045	0.025	J	mg/Kg-dry	1	7/24/2003
Benzene	ND	0.005		mg/Kg-dry	1	7/24/2003
Bromodichloromethane	ND	0.005		mg/Kg-dry	1	7/24/2003
Bromoform	ND	0.005		mg/Kg-dry	1	7/24/2003
Bromomethane	ND	0.01		mg/Kg-dry	1	7/24/2003
2-Butanone	ND	0.01	UJ	mg/Kg-dry	1	7/24/2003
Carbon disulfide	ND	0.005	UJ	mg/Kg-dry	1	7/24/2003
Carbon tetrachloride	ND	0.005		mg/Kg-dry	1	7/24/2003
Chlorobenzene	ND	0.005		mg/Kg-dry	1	7/24/2003
Dibromochloromethane	ND	0.005		mg/Kg-dry	1	7/24/2003
Chloroethane	ND	0.01		mg/Kg-dry	1	7/24/2003
Chloroform	ND	0.005		mg/Kg-dry	1	7/24/2003
Chloromethane	ND	0.005		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethane	ND	0.005		mg/Kg-dry	1	7/24/2003
1,2-Dichloroethane	ND	0.005		mg/Kg-dry	1	7/24/2003
1,1-Dichloroethene	ND	0.005		mg/Kg-dry	1	7/24/2003
cis-1,2-Dichloroethene	ND	0.005		mg/Kg-dry	1	7/24/2003
trans-1,2-Dichloroethene	ND	0.005		mg/Kg-dry	1	7/24/2003
1,2-Dichloropropane	ND	0.005		mg/Kg-dry	1	7/24/2003
cis-1,3-Dichloropropene	ND	0.005		mg/Kg-dry	1	7/24/2003
trans-1,3-Dichloropropene	ND	0.005		mg/Kg-dry	1	7/24/2003
Ethylbenzene	ND	0.005		mg/Kg-dry	1	7/24/2003
2-Hexanone	ND	0.01		mg/Kg-dry	1	7/24/2003
4-Methyl-2-pentanone	ND	0.01	UJ	mg/Kg-dry	1	7/24/2003
Methylene chloride	ND	0.01		mg/Kg-dry	1	7/24/2003
Styrene	ND	0.005		mg/Kg-dry	1	7/24/2003
1,1,2,2-Tetrachloroethane	ND	0.005		mg/Kg-dry	1	7/24/2003
Tetrachloroethene	ND	0.005		mg/Kg-dry	1	7/24/2003
Toluene	ND	0.005		mg/Kg-dry	1	7/24/2003
1,1,1-Trichloroethane	ND	0.005		mg/Kg-dry	1	7/24/2003
1,1,2-Trichloroethane	ND	0.005		mg/Kg-dry	1	7/24/2003
Trichloroethene	ND	0.005		mg/Kg-dry	1	7/24/2003
Vinyl chloride	ND	0.005		mg/Kg-dry	1	7/24/2003
m,p-Xylene	ND	0.005		mg/Kg-dry	1	7/24/2003
o-Xylene	ND	0.005		mg/Kg-dry	1	7/24/2003
Percent Moisture		**D2216**		Prep Date: **7/18/2003**		Analyst: **RW**
Percent Moisture	14.39	0.01		wt%	1	7/19/2003

SK 9/15/05

Qualifiers:
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B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
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R - RPD outside accepted recovery limits
E - Value above quantitation range

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Date Reported: July 25, 2003
Date Printed: July 25, 2003

Client: Camp, Dresser and McKee
Lab Order: 0307169
Project: 22171-37617, Former Morsey Site
Lab ID: 0307169-013

Client Sample ID: TB-01
Collection Date: 7/18/2003 8:00:00 AM
Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW8260B**			Prep Date:		Analyst: **MP**
Acetone	ND	0.01		mg/L	1	7/22/2003
Benzene	ND	0.005		mg/L	1	7/22/2003
Bromodichloromethane	ND	0.005		mg/L	1	7/22/2003
Bromoform	ND	0.005		mg/L	1	7/22/2003
Bromomethane	ND	0.01	UJ	mg/L	1	7/22/2003
2-Butanone	ND	0.01		mg/L	1	7/22/2003
Carbon disulfide	ND	0.005		mg/L	1	7/22/2003
Carbon tetrachloride	ND	0.005		mg/L	1	7/22/2003
Chlorobenzene	ND	0.005		mg/L	1	7/22/2003
Dibromochloromethane	ND	0.005		mg/L	1	7/22/2003
Chloroethane	ND	0.01		mg/L	1	7/22/2003
Chloroform	ND	0.005		mg/L	1	7/22/2003
Chloromethane	ND	0.005		mg/L	1	7/22/2003
1,1-Dichloroethane	ND	0.005		mg/L	1	7/22/2003
1,2-Dichloroethane	ND	0.005		mg/L	1	7/22/2003
1,1-Dichloroethene	ND	0.005		mg/L	1	7/22/2003
cis-1,2-Dichloroethene	ND	0.005		mg/L	1	7/22/2003
trans-1,2-Dichloroethene	ND	0.005		mg/L	1	7/22/2003
1,2-Dichloropropane	ND	0.005		mg/L	1	7/22/2003
cis-1,3-Dichloropropene	ND	0.005		mg/L	1	7/22/2003
trans-1,3-Dichloropropene	ND	0.005		mg/L	1	7/22/2003
Ethylbenzene	ND	0.005		mg/L	1	7/22/2003
2-Hexanone	ND	0.01		mg/L	1	7/22/2003
4-Methyl-2-pentanone	ND	0.01		mg/L	1	7/22/2003
Methylene chloride	ND	0.005		mg/L	1	7/22/2003
Styrene	ND	0.005		mg/L	1	7/22/2003
1,1,2,2-Tetrachloroethane	ND	0.005		mg/L	1	7/22/2003
Tetrachloroethene	ND	0.005		mg/L	1	7/22/2003
Toluene	ND	0.005		mg/L	1	7/22/2003
1,1,1-Trichloroethane	ND	0.005		mg/L	1	7/22/2003
1,1,2-Trichloroethane	ND	0.005		mg/L	1	7/22/2003
Trichloroethene	ND	0.005		mg/L	1	7/22/2003
Vinyl chloride	ND	0.005		mg/L	1	7/22/2003
m,p-Xylene	ND	0.005		mg/L	1	7/22/2003
o-Xylene	ND	0.005		mg/L	1	7/22/2003

SK 9/15/05

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range